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ABSTRACT

This document consists of the first two years (20 issues) of a newsletter intended for K-12 networking teachers. It provides a forum for the exchange of information for and by the K-12 community about digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. The following are regular publication features: Infobytes; Edulists; Project Corner; The Digital Calendar; and The NetTEACH Bookstore. Volume 1 cover articles include: "The Promised Land" (Janice Abrahams); "What the Blues Have To Do With Paying Dues--Bringing Teachers Online (Ferdi Serim); "A Gift of Hope to America's Youth: Press Conference Remarks" (William Jefferson Clinton); and the following articles by the editor: "Chaos in the Classroom: A Cornucopia of Opportunity"; "The Art of California Cooking and the Vision of K-12 Internetworking"; "The Tao of K-12 Networking"; "The Real Challenge of Getting Teachers and Students Onto the Information Superhighway"; "Changing the Political Economy of Education"; "A Small Green Island--Can We Make a Difference? You Have." Volume 2 cover articles, all by the editor, include: "Net-Impressionism, Digital Graffiti, and the Networked School"; "The Learning Revolution"; "NetParents: Building New Bridges of Understanding and Forging New Partnerships"; "The Vocation of Global Citizen"; "Learning Online--Virtual Outward Bound Adventures"; "The Internet--A World of Horizontals"; "Connectivity: One Small Step for Local Schools, One Giant Step for Global Learners"; "From Cybernetic Learning Colonies to a New Constitution for Global Learners"; and "Critical First Steps in Creating Cybernetic Learning Systems." (MAS)

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NetTEACH NEWS:
Vol. 1, April 1993 - March 1994

by Kathleen M. Rutkowski

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NetTEACH NEWS

April/May 1993 *A Newsletter for K-12 Networking Teachers* Volume 1, Number 2

The Promised Land

by Janice Abrahams

And lo, it was said that as pilgrims trudged through the desert, they were given a sign. It came in the form of the written word. They found a message on a paper they had long treasured.

Rejoice, it said, for the promised land lies just ahead. You shall find it as you drift along the shore of knowledge, prepare your children, for they shall know the land as if it were their own.

In order to reach this land, you must first cross the bridge of technology, along the Internet sea. The sea is calm but surrounded by fog and the bridge is hard to see. It is guarded by souls who speak in tongues, their words known only to a sacred few.

They use a machine to aid in the crossing. It is a magicaltelnetftp machine. In order to reach this land of plenty, you must divine the language of the guardians, master the machine and cross the bridge.

In the Promised Land you will find joyful pilgrims who have already mastered this machine, seen through the fog, and arrived upon the shore. They will welcome you. They will lead you through the Promised Land, showing you wonders never seen.

All will have access to knowledge, and images of great beauty will shine before your eyes. All will have the ability to communicate. You will be granted the power to share thoughts and learn with others who live in far-away lands.

Children will be filled with joy as friendly knowbots bring knowledge in an unending stream, and gophers dig up gold. All questions will be answered, none will ever go hungry, and your days shall be filled with sun.

Then more words on the paper suddenly appeared, obliterating all other writing on the page. To this day these words can still be seen.

"GOODLUCK", they said. Good Luck.

K-12 educators--poor, dusty and tired yet hopeful -- continue in their quest for Internet information. In a land plagued by a drought of network knowledge, they still manage to remain cheerful pilgrims searching for the secrets to allow them to bring the Internet into their classrooms.

The secret is knowledge of the Internet. Enough knowledge to: get them to their peers already on the net, lead them to successful curriculum-applicable lesson plans, help them past the hurdles of their lack of computer experience.

See PROMISED LAND *p.7*

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Common Ground: Towards Global Living Learning Villages

by Kathy Rutkowski (kmr@cnri.reston.va.us)

In a circle of friends
In a circle of sound
All our voices will blend
When we touch ***common ground.***
Voices are calling round the Earth
Music is rising in the Sea
The Spirit of morning fills the air
Guiding my journey home.

Adaptation and arrangement of Traditional Brazilian Song. Brazilian Music and Lyrics by Ivan Lins. English Lyrics by Paul Winter, John Guth and Michael Holmes. Copyright c 1978 Living Earth Music (ASCAP)

In 1978, Paul Winter released his highly unique and successful 'Common Ground' Album. The album was the product of a remarkable collaborative effort of over twenty talented and diverse musicians from around the world. These musicians came together one summer to Paul Winter's New England Retreat and found the 'common ground' that enabled them to create a living music village.

Fifteen years later students and teachers gathered together in London, in Tennessee, in California and in Virginia and found their 'common ground' to create a ***living learning village.*** The children that participated in the Global Schoolhouse Project--as it was called and which is profiled in this newsletter - met in an international video conference and shared their thoughts and research together by means of global computer networks, collectively known as the Internet. Paul Winter's vision of a contemporary tribe of people, finding common ground to work together, and celebrate life together in this experiment was extended to the children and their adult mentors.

There are many wonderful projects like FrEdMail's Global Schoolhouse, the MIT Media Lab's Logo Telecommunications Project, Academy One's Teleolympics, and The Pangaea Project of Jean Claude Bres that are linking diverse populations of students and teachers across the globe. As remarkable as these projects are they are somewhat like Paul Winter's Common Ground Album---they suggest a potential not yet realized, and hint at a vision not yet defined.

It will be years before we truly witness the full impact of these global electronic highways on educational landscapes worldwide. Intuitively, we recognize the inevitablity that significant change in the way teachers teach and children learn will result from a universal diffusion of these networking technologies. Moreover, we acknowledge that the future *living learning villages* will be vastly different from the schools we are familiar with today.

For the teachers and students now engaged in networking it is an exciting and challenging time. Few other times in the history of mankind have permitted so many teachers and students the opportunity to make history and promote revolutionary socio-economic changes. Driven by insatiable curiosity and utter excitement, children as young as preschoolers are redefining the role of student and teacher and intuitively finding common ground that will permit lifetime collaboration, meaningful learning experiences, and a global sensitivity and perspective.

Innovative and highly-motivated teachers are using computer networks to redefine curriculum and to extend the classroom experience to a global experience. These teachers are no longer lecturers but are now facilitators, and they are no longer implementers but are now innovators. Indeed, today's networking teachers are the pathfinders leading the teachers of today to the realization of their full powers and abilities tomorrow.

There is yet another important element in the evolving living learning village and that is the parents. Increasingly parents will be asked to reassume the significant roles they once played in their child's education. It is certain that networking will decentralize the educational process and in so doing demand a greater active participation by parents to assist children and teachers.

It is perhaps ironic that technology which has long been criticized for disrupting the social fabric and destroying the village culture is now offering the global society a way to restore meanigful values of village life including certain aspects of the education process. However, the technology can only offer a possibility and it is the task of every man, woman, and child; and every student, teacher, and parent of today to lead the way back to the future living learning village.

North Dakota's SENDIT --A First Class Educational Network

by Gleason Sackman

(Gleason Sackman is the Technical Director of Sendit and the Encyclopedia Brown of computer networks. His name appears in virtually every educational discussion listing as the provider of useful and interesting information. It is no wonder that SENDIT is a superb example of an educational network that was constructed with a clear understanding of the needs of the K-12 community. SENDIT is just a pilot and is only funded for three years but hopefully it will continue to be funded and provided with the additional support it needs to expand its capabilities and better serve its constitutuents as their knowledge and desire to use full Internet capabilities grows. In the article which follows, which first appeared in the ***January/February issue of Internet World, Volume 4, Number 1, pages 8-9,*** *Mr. Sackman describes NODAK SENDIT and provides access information. I urge you all to login as a guest and visit one of the best little educational networks in this country! KMR)*

To access SENDIT:

Via telnet at sendit.nodak.edu (134.129.105.1)

Via modem: 1-701-237-3283/3381 (7/E/1 or 8/N/1 - 1200/2400 baud - 24 hours/day)

After you have connected, press return until you see the prompt. Login as "bbs", password "sendit2me" -- this will give you a chance to "visit" parts of SENDIT, or become a registered user. Visitors are to read just about everything SENDIT offers; however, to post messages, send/receive e-mail, and other special features, you must be a VERIFIED USER. Once in the system, try one of these commands from any arrow ==> prompt:

who - who is online with you.

time - tells you the date, time, how long you have been online, and how much time you have remaining in your session.

go <name> - takes you to the place on the system you name. See the Main Menu for a (more or less) complete list of the features available.

x - logs you off the system from any arrow ==> prompt

The North Dakota Education Telecommunications Council provided $694,000 to be distributed over a three year period to develop and operate a K-12 telecommunications network. SENDIT as it is called was developed by the North Dakota State University School of Education and Computer Center. As of December 31, 1992, our user base has 769 teachers, 1521 students, 84 administrators, and 120 other (school of education majors, university instructors who use the system for class assignments.) This user base cover 255 of the 265 North Dakota school districts.

In April 1992, the FreePort bulletin board system was installed on the SENDIT's NeXT host computer. The installation of this new software makes it easier to transfer files from teacher to teacher and allows for an easy, but limited, access to the Internet. It also provides more statistical information about registered user activity including frequency of use, time of use, and activity. This accounting data is important because as SENDIT matures and provides access to more services, the providers want accountability.

Through SENDIT, students and teachers can exchange, share, search, and retrieve information. Currently, dial-up access can be from terminals or personal computers such as Apple IIe's, IIGs, Mac's or PC's., and a modem.

Access to the SENDIT host NeXT computer is available via dial-up lines, including four local access lines for those within a local call of the host NeXT computer, and six toll-free numbers, which are available only in North Dakota. Additionally, local access numbers have been established at the state's 11 higher education sites to provide more local access lines and take some of the pressure off the toll-free numbers. During the summer of 1993, another 40 additional local-access lines will be installed at 40 County Seats.

SENDIT users can send electronic mail locally and around the world, access state, regional, national and international libraries, and get new curriculum ideas from other teachers across the state and the country.

SENDIT offer access to over 70 Forums which focus on specific topics of interest to its members. They include topics for both teachers and students such as: Junior Chat, Senior Chat, English, Mathematics, Educational Technology.

One of the most popular Forums last year was the one containing new legislative bills. Several teachers implemented this Forum into their government and history classes. SENDIT users will again have access to the liegislative bills this year. Another popular Forum area was Campaign '92', sponsored by Academy One, a NPTN (National Public Telcomputing Network). Several government classses compared the campaign press release against what was report on tv, and what the canidates actually said.

Another popular forum area is the K12Net Educational Forums area. K12Net is an educational bbs network consisting of over 300+ BBSs located in schools around the globe, and distributed via the FidoNet network. K12Net offers chat areas, curriculum areas, classroom project areas, and foreign language areas.

Additionaly, forums can be and have been established for members only so they can exchange ideas privately. Examples are Ag Education, Technology Education, and Odyssey of the Mind.

Another popular area is the Electronic Classroom, where SENDIT users have access to CNN Newsroom guide, Newsweek guide/quiz, discussion groups, and historical documents.

Access to our college libraries like PALS and the State Library is a popular service. This includes access to ERIC searches.

(continued on next page)

NODAK SENDIT, continued from page 3

A teacher can now access Colorado Alliance of Regional Libraries (CARL) in Denver, Liberty at Washington & Lee, and others located throughout the nation.

Interestingly enough, there has also been an interesting development involving SENDIT. This development involves several foreign exchange students exchanging e-mail with friend and relatives back in their home country.

A recently added service to SENDIT is the ILL (Inter Library Loan) service. ILL enables SENDIT users to send a request for materials (books, periodical/newspapers) to the State Library. The request can be for materials they have found on any of the libraries our SENDIT users have access to.

The cooperation between higher education and K-12 schools came about as part of a requirement which needed to be satisfied in a National Science Foundation (NSF) grant application for statewide Internet TCP/IP protocol for all colleges and universities in the state system. That NSF grant was subsequently funded. State and national administrative sources are urging and/or mandating this type of cooperation between universities and school districts.

Money from the grant was used to purchase the SENDIT NeXT host computer, hire personnel, purchase and install routers, and other hardware.

Internet will soon be accessible to all our colleges and universities due to recent NSF and ETC grants which funds more telephone ports and necessary equipment. This will enable at least 75% of the state's population local call access to the systems because remote areas are scheduled to pilot distributives systems with the host bulletin board system at NDSU.

We are nearing the end our three year pilot project. The membership is growing each week as school building trainers spread the news in their area.

SENDIT is still a pilot project. Any teacher who is knowledgeable about accessing bulletin boards can get the number, log on and become a registered member. However, there is a training pattern in place to assure that every teacher in the state is afforded the opportunity to be trained by the time the school year ends in the spring of 1993.

For further information, contact: Gleason Sackman, Technical Coordinator SENDIT/Box 5164, NDSU Computer Center/Fargo, ND 58105 /701-237-8109

<sackman@sendit.nodak.edu>

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NRENNAISSANCE

Towards A Vision of NREN

by Marjory Blumenthal

The Computer Science and Telecommunications Board of the National Research Council has launched, at the request of the National Science Foundation, a new study on issues relating to the National Research and Education Network. The goal is to develop a five-year vision for the NREN program, considering both NSF-specific and more broadly-cast program concerns; the nature, degree, and timing of private sector involvement in the supply and use of the NREN; and how the evolving NREN should relate to the evolving, more comprehensive national information infrastructure.

This project will produce CSTB's second report on the NREN. In July 1988, CSTB issued a report, Toward a National Research Network, on the feasibility, utility, and finance and management issues associated with the original plans for the NREN. That report was instrumental in building early support for the NREN. The situation is more complex now, and the set of relevant issues is broader, although many of the issues raised in CSTB's earlier report remain of concern. The current project will focus on medium- to long-run problems and objectives; it will address issues that can be addressed independent of the process of awarding the new cooperative agreements.

The study committee, which has called itself NRENAISSANCE, is chaired by Dr. Leonard Kleinrock of the University of California at Los Angeles. Dr. Kleinrock also chaired the first CSTB committee. The full membership is listed below. Since there is a limited number of committee slots, the committee has solicited input from others. A series of briefings and discussion sessions was launched at the first meeting, and the committee welcomes written inputs (observations on what the NREN is and should be and why; key obstacles to the development of the NREN; and so on). Written inputs should be sent to CSTB director Marjory Blumenthal at 2101 Constitution Avenue, NW, Washington, DC 20418, or email to:

<mblument@nas.edu>

WHITE HOUSE ANNOUNCES NEW SUMMER PROGRAM FOR TEACHERS

Hundreds of middle and high school teachers from across the country will sharpen their science and mathematics skills at 16 world-class federal laboratories and facilities under a new Summer Teacher Enhancement Program announced on March 23, 1993 by Dr. John H. Gibbons, President Clinton's Assistant for Science and Technology.

The four-week Summer Teacher Enhancement Program will retrain 800 teachers each year in mathematics, science, and technology by exposing them to hands-on projects and experiments conducted by scientists and engineers in the nation's R&D laboratories. In addition, the teachers will work on-site with education specialists to learn how to use new curriculum and teaching aids.

"This innovative program moves beyond traditional education training by teaming teachers with working experts on actual projects," said Dr. Gibbons. "As teachers return to their classrooms, not only will they be better equipped to inspire students to careers in science, engineering, and mathematics, they will seed the teacher corps with new ideas as well."

The program takes a unique approach to teacher retraining that combines classic instruction with hands-on experience in an intense four-week period. It is the first such program to collaborate so broadly across the agencies. Each host facility will set its own criteria for selection of participants. Follow-up contacts between participants and facility experts will provide continuing education beyond the four-week period. An external evaluation of the program will be jointly funded by the National Science Foundation and the Department of Energy, with input from the other agencies involved. The $4 million Summer Teacher Enhancement Program is funded through the Department of Energy and was arranged through the Committee on Education and Human Resources of the Federal Coordinating Council for Science, Engineering and Technology (FCCSET).

Sixteen federal laboratories and facilities will each host 50 middle school or high school teachers from their regions.

For additional information about specific sites and their unique topics of study, please contact:
Cindy Musick, Education Development Specialist, Office of University and Science Education, U.S. Department of Energy, Washington, DC 202-586-0987.

NetTEACH Talk

Leni Donlan
afcleni@aol.com

Leni Donlan is one of the educator pathfinders leading the way to the global living learning villages of tomorrow. In addition to inspiring a new generation through teaching, she is helping her peers by actively participating in AOL, and in the CoSN curriculum committee. Thanks, Leni, and it's a pleasure to know you. KMR

Hello,

I am an avid telecommunicator and overcommitted educator. I live, breathe,think education -- what will make it better? I am a veteran teacher, 10 years in special education and almost as many in 3-8th grade general ed. I believe passionately in the power of technology! I love integrated, thematic curriculum, multi-aged projects, intergenerational work.....and making telecommunications a "reaching out and touching" tool....to bring the world and its marvelous peoples to me and to my students! Perhaps, you have noticed.....I am the enthusiastic type, as well. :-)

In my school district, I have been a "Technology Mentor Teacher" for the past three years. In addition, I am currently working as a forum consultant on America Online Telecommunications Network, where I have been concentrating on setting up collaborative, interactive projects for students/classes. I am using Iris Network--wonderful people resources and powerful discussions occur there......and I use CORE to connect to the internet and keep track of what the CSU system and CA State Dept. of Education are doing....

Leni Donlan

EDNET -- A Listserv for NetTEACHERS

Ednet is a discussion list for those interested in exploring the educational potential of the Internet. Participants are from around the globe and discussions which cover subjects of interest to K-12, and adult higher education communities are lively and informative. Those engaged in teaching and research who wish to begin or extend their work through the Internet are welcome. The list moderator is Prescott Smith.

To subscribe, email to:
listserv@nic.umass.edu
First line in Body:
Subscribe Ednet (Your Name)
For Example: Subscribe Ednet (Jane Doe)
For further information email:
pgsmith@ucsvax.ucs.umass.edu

NetProject Profile: The Global Schoolhouse

A Vision of Tomorrow

by Yvonne Marie Andres

andresyv@cerf.net>

Students, their parents, and teachers were invited to participate in a very exciting and significant Global Schoolhouse project that combined the elements of student problem solving skills, environmental issues, global conscientiousness, and modern information technologies to accomplish a common goal. Students were asked to investigate the problems created by water run-off and to design a public awareness program that can be implemented in their own communities, and then shared and replicated globally. They helped make the world's waters safer by becoming student ambassadors for environmental reform.

Dependence on toxic chemicals has serious consequences for our environment and is compromising our future. Improper use or disposal of motor oil, antifreeze, pesticides, fertilizers, agricultural by-products, rock salt, household cleaning products, paints, solvents, and waste products contribute to serious water contamination through urban runoff, also known as nonpoint source pollution. Students have the power to play an important role in making their neighborhoods and the global environment safe from toxics and protecting the earth's water quality. Many regulatory agencies and educational programs have already been established to address the issue of urban runoff. Therefore, students were encouraged to gather, compile, analyze, synthesize, organize, and share existing information in order to generate a strategic plan that would apply their findings in a useful and effective manner. Students produced a newsletter and a calendar from their collaborative research.

Four 5th through 8th grade classrooms conducted research on the environment. These classrooms, were located in California, Tennessee, Virginia, and London. The children read Vice President Gore's "Earth in the Balance: Ecology and the Human Spirit"(Houghton Mifflin, 1992). In conjunction with their reading, the students investigated the problems created by water run-off and designed a public awareness program that can be implemented in their own communities. These same programs can later be replicated in other communities throughout the world.

Throughout the Global Schoolhouse project, the classrooms interacted with each other through the use of FrEdMail and the Internet.

The four original partner schools engaged in several special video teleconferences that were conducted over the Internet using the Cornell CU-SeeMe software for the Apple Macintosh. Several guest speakers were invited to help moderate this video teleconference, allowing the classrooms to present their findings and engage in a mutual dialogue about the environment and what can be done by both students and national leaders.

The Global Schoolhouse project was aired on television during National Science and Technology Week (April 26-May 1), a yearly event conducted by the National Science Foundation to showcase programs of particular note.

The implementation of this project was made possible through funding and support from the National Science Foundation, and, donations of equipment and services from CERFnet, FrEdMail, Pac Bell, Sprint, Apple Computers, Cisco, Cayman, JDL Technologies, Cornell University, and other companies not yet determined.

Curriculum and coordination of classroom activities for the project was facilitated by the FrEdMail Foundation.

Although the project itself is was limited to the four pilot schools, activities and findings were shared with other schools around the world.

In this project, students became

STUDENT AMBASSADORS FOR
ENVIRONMENTAL REFORM!

If you would like information on this project, please send a request to:

Yvonne Marie Andres, Program Coordinator
823 Acacia Avenue, Oceanside, CA 92054
Oceanside Unified School District;
Director of Visionary Learning Applications
FrEdMail Foundation
+1 619 757-6061 or/619 439-0914 FAX/619 433-1409
<andresyv@cerf.net>

The Promised Land

(continued from front page)

Teachers need to know how to use the Internet to gain the knowledge they seek. Paradoxically, all the help they need is waiting on the net. Peers and colleagues will support them, and information sources lie waiting to be discovered. Educators desperately need help getting to these valuable resources.

Wonderful resources are available to those who can guide themselves past the Unix prompts, the telnet instructions, and the ftp commands in order to unlock the secrets waiting across the bridge.

But wait! Some simple services can be reached by email. And, one of the best of these services is the ***Eric Clearinghouse.***

This system is a perfect example of how one pointer into the Internet cloud can help users become excited, comfortable and educated quickly. The Eric Clearinghouse bypasses the initial frustration of not knowing where to go and allows new users a direct one-on-one experience through the net.

The **AskERIC project** is a question-answering help and referral service for K-12 educators. Funded by the U.S. Dept. of Education, the ERIC Clearinghouse on Information Resources is managed by Syracuse University. Originally concentrated on three state networks: Nysernet in New York, Tenet in Texas, and Sendit in North Dakota, they are expanding to reach a national audience.

Staff are courteous, prompt and offer faxed responses directly to the user. For example, a request for information on an Oceanography database suitable for fifth to seventh grade children received a response within two hours.

The AskERIC project acts as a friendly buffer between the resources and the new user. They do the literature searches and contact people on the net. The Eric System is constructed of 16 clearinghouses of content- specific information. Eric also publishes a two-page digest on Internet uses for beginners. In addition, they provide instructions for new users to access ERIC databases via the net.

Please send any comments or ideas to: Janice Abrahams - **janice@bitnic.educom.edu**

K-12 EDUCATORS ASKERIC AND THE ERIC SYSTEM

Educators: Do you have education-related questions? AskERIC and the ERIC system can help.

ERIC is: The Educational Resources Information Center (ERIC) is a federally-funded national information system that provides access to an extensive body of education-related literature. ERIC provides a variety of services and products at all education levels.

AskERIC is: AskERIC is a question-answering service for teachers, library media specialists, and administrators. Anyone involved with K- 12 education can send an e-mail message to AskERIC. Drawing on the extensive resources of the ERIC system, AskERIC will respond with an answer within 48 working hours. If you have questions about K-12 education, learning, teaching, information technology, educational administration - AskERIC.

In the first eight weeks of service, AskERIC has answered hundreds of questions. Highlights include helping:

* A reading teacher locate information on a particular instructional technique.

* A school computer teacher find information on computer software copyright laws.

* A high school teacher use the Internet as a source of teaching/learning materials for his school.

* A school administrator find information on student testing.

* A school librarian learns how to conduct ERIC database searches via the Internet.

If you have an education-related question, AskERIC will provide an answer. To AskERIC, e-mail your question(s) to:

askeric@ericir.syr.edu

ERIC Clearinghouse on Information Resources
030Huntington Hall
Syracuse University
Syracuse, NewYork 13244-2340

What's New in Discussion Lists?

KIDSNET RENAMED KIDSPHERE

Under the threat of a lawsuit from Kidsnet, Inc., a clearinghouse for children's television programs in Washington, DC, KIDSNET, the mailing list's name, was changed to **KIDSPHERE.**

The address is now :

kidsphere@vms.cis.pitt.edu (Internet)
kidsphere@pittvms.bitnet (Bitnet)

The new name is meant to convey the idea of an electronically-linked global community and to hint at the different spheres of activity with which this community is involved. The addresses listed above are meant for postings to the mailing list's readership. For information, subscriptions, address changes and cancellations, please write to the administrative address

kidsphere-request@vms.cis.pitt.edu Internet]
joinkids@pittvms.bitnet [BITNET]

K12ADMIN Discussion List

K12ADMIN provides a forum for discussions that focus on the topics of interest to the K-12 school administrator community, including the latest on school management, curriculum, services, operations, technology and activities. K12ADMIN is a discussion group for administrative practitioners helping other administrative practitioners, sharing ideas, helping to solve problems, telling each other about new publications and up-coming conferences, asking for assistance or information, and linking administrators for information and resource sharing.

This discussion is open to ALL school administrators and people involved with the school administration field-- worldwide.

To subscribe to K12ADMIN:

Send an e-mail message to:
listserv@suvm.syr.edu
Include the message:
subscribe K12ADMIN Your Name
Example: subscribe K12ADMIN Tom Thumb

For more information please contact one of the following:
Mike Eisenberg **<ERIC04@SUVM.SYR.EDU>**
Mary Lou Finne
MARY_LOU_FINNE_AT_CATE@CCMAIL.UOREGON.EDU
Peter Milbury **PMILBUR@EIS.CALSTATE.EDU**

NORWAVES@nki.no WEEKLY NEWS FROM NORWAY

Four Norwegian students recently installed a listserver in Norway. The listserver list NORWAVES will distribute weekly news from Norway provided by Norinform--the press office established by the Norwegian Information Council.

To subscribe to NORWAVES, send a message to :

listserv@nki.no

In the main body write,

subscribe NORWAVES <your full name>

Questions and comments concerning the list can be sent to the list editors at

< nwnews@nki.no>

Andre Kristiansen
Per Staale Straumsheim

TRAIN THE TRAINER

Train the Trainer is a workshop designed for computing support staff who work with faculty. It is offered by the Learning Technologies Program--a joint initiative of Cornell Information Technologies and Apple Computer, Inc. The workshop will help participants design and teach their own faculty computer workshop or adapt the Learning Technologies Program (LTP) workshops to meet the needs of their faculty who want to incorporate Macintosh computer technologies into their instructional activities.

All participants will receive copies (both hard copy and electronic) of all five LTP workshop student guides and instructor notes, along with permission to copy and use, or modify and use them for educational purposes.

Dates and Locations - one day Train the Trainer events:
Culver City, CA - May 6 or May 7, 1993
Charlotte, NC - July 13 or July 14, 1993
Boston, MA - August 3 or August 4, 1993 (just prior to MacWorld)
[Boston, MA - April 16, 1993 sponsored by NERComP contact LTP for info.]

To ask questions, or be added to the LTP mailing list, contact :

The Learning Technologies Program
CIT-220 CCC-Garden Avenue
Cornell University
Ithaca, NY 14853-2601
Phone: 607-255-3329
Fax: 607-254-5222
Electronic mail: LTP@Cornell.edu

SURAnet NIC '93 Internet Series Announced

SURAnet-- a not-for-profit network that provides access to the Internet for the Southeastern region of the United States-- is now hsoting the "SURAnet New & Prospective Users Internet Session" for those wishing to utilize Internet resources in their organizations.

The full-day program held at SURANET's College Park, MD offices features both general and technical overviews of SURAnet and the Internet, as well as a closer look at the rapidly expanding networked information resources available right from your desktop. Also included is a segment on forging the physical link that connects SURAnet's members to the wider Internet community.

The following listing are sessions that have been scheduled :

March 25
April 28
May 19
June 24
July 28
August 31
September 29
October 27
November 30
December 21

For further details, please contact the NIC at **info@sura.net** or call Michael Taranto at (301) 982-4600. Fax (301) 9824605

NECC'93
The Magic of Technology

The fourteenth annual National Educational Computing Conference will be held June 27-30, 1993 at the Marriott's Orlando World Center in Orlando Florida. This year's theme is the *Magic of Technology* and it refers to the enabling capabilities of computers and related technologies, as well as the changes technology has made and continues to make on all aspects of our lives.

NECC '93 will offer both pre- and post-conference workshops (Sunday, June 27, and Thursday, July 1). These workshops will include integrating technology & information skills into the classrooms, hypercard in the classroom, microworlds: a new vision of logo, infortissimo music with the computer, collaborative whole-language authoring using hypermedia, butterflies to the gold rush: developing multimedia thematic units, among many other equally fascinating workshops.

There will be over 400 exhibit booths in two large ballrooms featuring vendors of hardware, software, technical publishing, and related equipment and services that emphasize the use of computers in education.

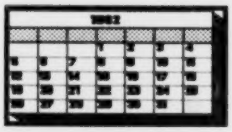
Participants will be able to chose from a variety of sessions including: ***spotlight sessions*** with such speakers as Vice President Al'Gore, Jr., and Keith Schaefer, ***paper sesions*** which describe actual experiences with computers in education, **project sessions** where brief descriptions are given of innovative activities in educational computing and technology on such topics as curriculum development, implementation, evaluation, telecommunications, multimedia, teacher training, etc; ***Society sessions*** in which the organizations supporting NECC offer special sessions and panels reflecting their areas of interest; ***poster sessions*** wherein participants can engage in one-on-one or small group discussions with presenters; vendor sessions; ***Birds-of-a-Feather Sessions*** that provide informal opportunities for those with common interests, problems, or goals to gather and exchange ideas.

Information about the conference,program, or exhibits may be obtained from:

Susan Gayle at (503) 346-4414

or

Donna Baumbach at (407) 823-3275
FAX (407) 823-3276
EMail:**Baumbach@UCF1VM.CC.UCF.EDU**



UPCOMING EVENTS

TECHNO EXPO '93 - "Minds-On, Hands-On, Rethinking the Role of Technology" . May 20-22, 1993 at Fairmont State College in Fairmont, West Virginia. Sponsored by The North Central Regional Education Service Agency (RESA VII). For information call David Signorelli or Lyn Bennett at (304) 367-1431 (M-F, 8:30-4:30 EST)

The World of Telecommunications and its Use in Education The Second Annual Conference. June 17, 1993 at BALDWIN-WALLACE COLLEGE in Berea, Ohio. For information contact:Herbert Vaughan

<aa502@cleveland.freenet.edu>
<hvaughan.@rs6000.baldwinw.edu>

PSAC '93--(PROBLEM SOLVING ACROSS THE CURRICULUM 1993) June 24 - 26, 1993 at Hobart/William Smith College, Geneva, New York.
For information contact:
Dr. David Craig
Hobart and William Smith Colleges
Geneva, New York 14456
E-Mail: **CRAIG@HWS.BITNET**

VAPEN, THE POSSIBILITIES ARE AMAZING, June 26, 1993 at Curry School of Education, Universityof Virginia. For information contact: John Wenrich

jwenrich@swvgs.vak12ed.edu

or Jean Weller

<jweller@vdoe386.vak12ed.edu>

NECC'93, The Magic of Technology. June 27-30 at Orlando World Center in Orlando, Florida. For information, contact Donna Baumbach,

Baumbach@UCF1VM.CC.UCF.EDU

INET'93--the annual conference of the Internet Society. August 17-20,1993 in San Francisco, CA
For information,
tel:1 -202-872-4200/fax 1 202 872-4318
e-mail: **<Request@inet93.standford.edu>**

TELETEACHING 93 organized by The Norwegian Computer Society. August 20-25, 1993 in Trondheim, Norway. For Information contact: Jan Wibe, chairman of the Programme Committee
< janwi@ifi.unit.no>

News from Washington: *The Boucher Bill*

by Connie Stout
Tenet Director

On April 21, Congressman Rick Boucher (D-VA) introduced the THE HIGH PERFORMANCE COMPUTING AND HIGH SPEED NETWORKINGAPPLICATIONS ACT OF 1993 or H.R. 1757. The Boucher Bill as it is now commonly known significantly expands on provisions found in last year's "Information Infrastructure and Technology Act" (commonly known as "Gore II," or the followup to Vice President Gore's NREN bill, or the High Performance Computing Act). Specifically, this bill seeks to expand applications to schools, medical facilities, libraries and communities. What follows is a selected portion of Connie Stout's excellent analysis of the bill. Connie is the Director of TENET and a leading national advocate for the K-12 community in its efforts to gain and maintain access to the Internet.

ANALYSIS OF H.R. 1750 K-12 RELEVANT SECTIONS

The bill amends the High-Performance Computing (HPC) Act of 1991 by adding a new Title III having the following sections:

Section 301. Establishment of Applications Program. The Director of the Office of Science and Technology Policy (OSTP), through the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET), is charged to establish an interagency program to develop applications of computing and networking technologies for education, libraries, health care, the provision of government information, and other appropriate fields. The program is required to focus on applications accessible and usable by all citizens, and a plan is required which establishes the goals and proposed activities under the program. The President designates the federal agencies which will participate in the applications program.

Section 306. Network Access.

As part of the plan, the National Science Foundation (NSF) and other appropriate agencies **are tasked to assist educational institutions at all levels, libraries, and local governments to establish local networks and to connect to the National Research and Education Network (NREN). In addition, instructional programs are authorized to train teachers, students, librarians, and local government personnel in the use of computer networks and NREN, in particular. Finally, the OSTP Director is required to provide a report to Congress of an examination of the level of connectivity of schools, libraries, and local government offices to the NREN, an estimate of the cost of universal access, and recommendations for ways to expand connectivity.**

A five-year authorization is provided: $20 million for FY 1994, $60 million for FY 1995, $70 million for FY 1996, $80 million for Fy 1997, and $80 million for FY 1998.

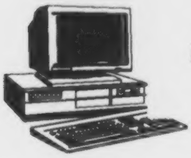
Section 308. Applications for Education.

The plan is required to specify applications for education at all levels. Activities under the plan must include: projects to demonstrate the educational uses of the Internet; development of hardware systems, software and networks for teacher training and informal education; and development of educational software.

The plan is required to include projects which address K-12 education and which strengthen ongoing educational reform activities. Authorized projects include: provision for connections among schools in local regions and for connection to the Internet, addressing the needs of both rural and urban areas; collection and dissemination of effective educational programs available via the Internet; development of undergraduate courses on educational applications of computing and networking for teachers in training; and development of educational software designed for collaborative use over the Internet. A five-year authorization is provided for NSF: $24 million for FY 1994, $70 million for FY 1995, $82 million for FY 1996, $94 million for FY 1997, and $94 million for FY 1998.

Section 4. High-Performance Computing and Applications Advisory Committee. The bill amends subsection 101 (b) of the HPC Act of 1991, which establishes an advisory committee for the HPC Program. The amendment broadens the scope of the advisory committee to encompass the applications activities authorized by the new Title III. **The membership of the committee is expanded to include representation from the K- 12 education community and from consumer and public interest groups.**

Section 5. National Research and Education Network Amendments. Amendments are made to section 102 of the HPC Act of 1991, which establishes the National Research and Education Network (NREN) in order to define a revised NREN Program having three components: (1) research and development of networking software and hardware required for achieving gigabit data transmission rates, (2) **experimental test bed networks to develop and demonstrate advanced networking technologies and to support applications requiring levels of network performance not available from privately operated commercial networks (uses for services available from commercial networks are banned 18 months after enactment), and (3) provision of support for researchers, educators and students to obtain access to and use of the Internet for purposes consistent with the Act.** Reports to Congress are required which specify a plan for achieving the goals of component (3) defined above, and which describe annual progress toward implementation of the plan.



Instruction Corner

What is a K-12 Gopher?

by Michael Waugh

The Internet is VAST thus there is lots of information out there but like needles in a haystack the info you need can be difficult to locate. Gopher is a distributed "database"-like system which allows folks on the various computer systems out on the Internet to establish a shared "folder" or directory and "publish" it for general access by all of the rest of us using the Internet. Currently, the gopher server programs (which create the shared directories) deal with ASCII text documents, and gif formatted picture files. It is thought that eventually, all types of specific file formats will be supported. So, basically, if they desire to do so, then all of the machines connected to the internet can create a gopher server and store whatever they want there for others to access.

To access the gopher servers, individuals run gopher client software on their own computers or on the computers on which they have their login accounts. Thus, there are clients for macintosh, ibm, unix-based systems and vmd-based systems.and probably many more.

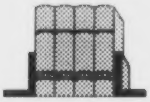
When you "run" the gopher client, it links you to a remote server (you can specify which one) and from this server, you can navigate through menu like interfaces to connect to other remote machines and the information which is stored there. In some cases, you might not even know which machine had the info you were looking for, but by navigation through menus, you can access it and download it to your own machine.

The internet has thus been termed "gopherspace" and we gophers burrow through it like the software's namesake until we locate the info we are looking for. Many of the documents stored in the Gopher servers have been keyword indexed and can be located through keyword searches. Boolean searches are now available although still a bit experimental at the moment. Also, you can search through all of the "menu" choices on all of the servers around the world using Veronica, a keyword search mechanism developed at UNLV.

So, what is gopher? A very powerful information access and retrieval tool that is helping us cope with the vastness of the internet and massive amounts of information which are now available in the Internet.

What is a K-12 gopher? Officially, it is a grassroots movement by those of us in K-12 and above to construct a series of gopher servers which contain information of interest to the K-12 + community. If we all collaborate on this, we should be able to "point" our servers at most of the interesting things happening on the internet and thus save teachers some time in helping them locate items of interest.

Michael Waugh <mwaugh@uiuc.edu>
University of Illinois at Urbana-Champaign



For the Shelf: Recommended

by Kathy Rutkowski

📖📖📖📖 The Unschooled Mind How Children Think and How Schools Should Teach by Howard Gardner (Basic Books) 1991, 303 pages, paper US $13.00. *For anyone interesting in learning, teaching and children, this book is essential. Howard Gardner suggests a need to restructure schools to better fulfill the mandate of teaching. His insights are brilliant and when we consider the revolutionary potential of networks, we should heed his words of wisdom and learn from our past mistakes.*

📖📖📖 Internet: Getting Started by April Marine, Susan Kirkpatrick, Vivian Neou and Carol Ward. (PTR Prentice Hall) 1993, 360 pages, paper *Primarily a guide to Internet connectivity including information on types of access, steps for initiating access, and costs of connectivity. It also provides some useful information on national and international internet organizations.*

📖📖📖 America's Best Classrooms, How Award Winning Teachers Are Shaping Our Children's Future by Daniel and Terry Seymour and 30 Teachers of the Year (Peterson's Guides) 1992, 137 pages, hardcover. US $17.95. *An interesting look at some wonderful teachers.*

📖📖📖 Constructionism edited by Idit Harel and Seymour Papert (Ablex Publishing Corporation) 1991, 518 pages. Research reports and essays by the Epistemology & Learning Research Group, The Media Lab, MIT. *Constructionism offers educators the means to empower children in ways which encourage a lifetime curiosity and dedication to learning.*

THE CABBS video and handbook was created for the busy, non-technical educator by Arden Rauch, a once computer-phobic teacher in Schenectady, New York.

Both the 25-minute video and the handbook deal with the basics of setting up a computer bulletin board and advice and guidelines on how to manage one. The Annenberg/CPB Project provided the initial funding for the project.

The video and handbook sell for $24.95 and can be obtained by calling 1-800-LEARNER. For a flyer, send an e-mail message to

RAUCHA@gar.union.edu.

NetTEACH NEWS provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major national, regional, and state programs and policies relevant to K-12 networking. It will hopefully become a platform to many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*.

NetTEACH NEWS is published ten times a year.

Send submissions and subscription queries to:
Editor: Kathleen M. Rutkowski
13102 Weather Vane Way
Herndon, VA 22071 U.S.A.
email address: kmr@cnri.reston.va.us

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NetTEACH NEWS

Volume 1, No. 3 The Newsletter for K-12 Networking Teachers August 1993

Chaos in the Classroom: A Cornucopia of Opportunity

by Kathy Rutkowski kmr@cnri.reston.va.us

Dynamics freed at last from the shackles of order and predictability...Systems liberated to randomly explore their every dynamical possibility...Exciting variety, richness of choice, a cornucopia of opportunity." Joseph Ford of Georgia Tech cited in Chaos by James Gleick, pg. 306)

Today's teachers understand chaos. They work in it, live with it, and employ it. Chaos may be new to physicists, medical researchers,meteologists, mathematicians, and to other scientific disciplines but it is a way of life in education.

Chaotic theory permits us to ask physicists the profound question "Why are all snowflakes different?" Intuitively, parents, and teachers grasp that no two children are alike and that children learn as differently as snowflakes grow.

However, as a society we allow physicists freedoms we deny educators. We continue to hamstring the efforts of teachers and child psychologists to fully acknowledge chaos in the system of learning. Are our children somehow less precious than a snowflake?

Society can and should ask for accountability, equality and effectiveness in the classroom but to demand conformity in the process of learning and in the practice of teaching is to deny two universal truths, 'all children are uniquely creative individuals,' and 'all teachers are uniquely creative individuals.'

New technologies that have freed physicists to explore the dynamics of snowflakes are now assisting teachers in their classroom exploration of the process of learning and creativity. Computers, computer networks, video, CD-ROM, and virtual reality technologies are being employed by teachers in their classrooms to tailor lessons to the individual needs and interests of student and teacher alike, and to form cooperative learning environments not dictated by a mere physical address but rather by a commonalty of interest.

See CHAOS, page 2

A Glimpse Inside:

Chatback..p2
Tom Holloway describes four new projects by the Chatback Foundation.

An Open Letter to the Governor of North Carolina..p3
NetTEACH Barbara Pederson presents a strong case in behalf of K-12 networking.

White House FAQ's..p.4
The White House recently released a FAQ's. Here we take a look Section I on "How to Receive White House information"

Apicnet..p.5
Yoko Kaneko gives insight into the goals of APICNET and Japanese Network Diplomacy.

A Visit to Gopherland..p.7
In this issue we take a look at the Texas Studies Gopher, Armadillo and the Bloomfield Hills Model High School Gopher.

Instruction Corner..p.8
Mind your "@'s" and ".'s" for the novices and public-access gopher burrows for the gopher-hunters.

To Browse or To Buy..p.9
!%@::A Directory of Electronic Mail Addressing and Networks and The Internet Passport are both worth a browse.

The Digital Calendar..p.10
INET'93, INTEROP'93, TELECOTTAGE'93 and TEL-ED'93 are fast approaching.

What's New ?..p.11
Dept. of Commerce opens EEB via the nets for a trial complimentary period.

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Chaos, from p.1

Today's teacher realizes that the teaching mission is not clear-cut and simple, and that no single methodology, no single instructional tool, and no single plan of action can be employed for all students at all times. He or she is a master magician with a bulging black sack, pulling out all the tricks of the trade not to deceive but to inspire, not to regulate conformity but to instill the value of social responsibility, and above all not to subdue or destroy the child's spirit but to unleash their yet boundless creative energy.

It is not an easy task and one made more difficult by a society that demands more and less of teachers than of any other comparable profession. Students, school boards, local, state and national governments, parents, and citizens expect teachers to perform miracles every day with relatively low compensation and professional regard.

Teachers are not asked " to teach" as much as "to produce" results that are measured by standardized tests. Ironically, these tests are typically engineered by those who have never taught inside a classroom. Basically, society willingly empowers an unscrutinized group of test-makers to dictate to teachers and students what is or is not relevant knowledge.

The situation will not change until teachers and students use their creative energy to change the system and to demand their legitimate rights.

The real hope is that the teachers of today will find ways to free themselves from "the shackles of order and predictability" and will use new technologies along with old tools of the trade to create rich and varied learning enviroments within which all children can enjoy an equal opportunity to develop their own unique talents, to acquire fundamental survival skills, and to be motivated to use those talents and skills in a creative and productive manner for the benefit of themselves and the global society.

NetTEACH NEWS was conceived as a means to provide you educators with knowledge of the new digital networks and some applications that may help you in your classrooms and in the greater classroom where we are all learners and teachers alike. It will hopefully become your platform to many varied personal and collective travels to new worlds.

I look forward to hearing your questions, comments, and suggestions so that I can better serve you who are the true explorers and vanguards of change in the American and in the evolving global public education system

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Chatback

by Tom Holloway

<xuegx@csv.warwick.ac.uk>

The Chatback Trust announces four projects for schools anywhere in the world. We particularly welcome schools or units for children with special needs.

Projects will run from September 1993. The following text is just a summary. For further information please write to the moderators or to the:

Director of Chatback,
Tom Holloway
t.holloway@warwick.ac.uk

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TIME CAPSULE

Moderator - Pat Davidson
p.davidson@warwick.ac.uk

Imagine the year is 2033 - just about forty years into the future, and you are somewhere between the ages often and fifteen years. One day, to amuse yourself, perhaps you are rummaging in a long-forgotten school cupboard, or down in a cellar, or even digging somewhere, and you come across a large metal box, on which is written "Buried in 1993". You open the box, and inside you find ...?

This is where you come in! What things do you think might represent your community or school? A Walkman, perhaps? A can of Coke? A video of some event? Some photographs? A computer? A map of Central Europe? A tennis racquet? Copies of some newspapers? Which newspapers? Whatever you decide on, tell us something about it by writing to us at:

<TIME@sjuvm.stjohns.edu >

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BIRDS

Moderator - Nigel Palmer
<n.palmer@warwick.ac.uk >

Design and make a bird table. Describe it to us or make a rough drawing with your word-processor and send it to us on TALKBACK
<talkback@sjuvm.stjohns.edu>

See BIRDS p. 6

NetTEACH SPEAKS:
A Letter to the Governor of North Carolina

Dear Governor Hunt:

I have followed with great interest your proposals for an Information Highway for the State of North Carolina. I teach science on a 6th and 7th grade team at Guy B. Phillips Middle School in Chapel Hill, NC. Two years ago the North Carolina Supercomputing Center made a connection to the Internet and user training available to us in a pilot project to see what could be done with such a connection at the middle school level.

At this point we never again want to live without it! I am enclosing a summary of just some of the activities we have engaged in the past two years. It did take time to become comfortable with using e-mail and to find sources of activities appropriate for our kids. While this type of use is not exactly what is spelled out as the objective for the Information Highway, it is another application, the effectiveness of which (in my opinion) should not be overlooked.

We began with a commercial package, the AT&T Learning Circle, and gradually became more proficient at making use of the non-commercial network activities offered through FrEd Mail, Academy One (the Cleveland Freenet), and Kidsphere.

The benefits of these activities ranged widely. Middle schoolers are very concerned about who they are and what their roles in the world will be. Being able to communicate "instantly" and discuss issues of immediate concern to them with children their age all over the United States and Europe gave them a perspective not available through any means other than world travel. We participated in the election last fall. While Chapel on computers in the classroom and sent the tallies to the network election central to be counted with those from across the country. You know how Chapel Hill votes; we were true to the colors!

We participated in a Space Shuttle Simulation project and had kids here at school on-line from 8 a.m. till 10 at night, who later said that was the most exciting experience they had all year. The amount and depth of physics we were able to explore because of excitement of the Shuttle Simulation never could have been accomplished under ordinary circumstances.

I have been teaching for a little over 20 years, but these past two have been like starting all over again - this time with much more excitement! I have colleagues and resources all over the country who and which can be accessed very quickly as needed, not to mention electronic bulletin boards when we want to know something fast and don't know who to ask.

Several times this spring our children gave presentations to different people and groups on their use of the Internet communications. If you are interested, I would like to invite you or anyone designated from your office to come and see what some of the possibilities are for classroom use of a network connection.

In my opinion, this may be the easiest, cheapest, quickest, most reliable way to upgrade education across the board by simply making information equally and instantly available to all. Come and see for yourself!

Several of the children indicated they would be happy to come back to school to make a presentation during the summer, or it could take place during the fall when school is once again in session.

We are very grateful to the North Carolina Supercomputing Center for their generosity, educational outreach, and vision in making network opportunities available to us. We share a deep conviction that this resource should be made available to all the students of North Carolina through the State Department of Public Instruction.

I look forward to your reply.
Sincerely,

Barbara Pedersen
6th/7th Grade
Science Teacher

Frequently Asked Questions (FAQs) About the White House Electronic Publications and Public Access E-Mail

(What follows constitutes excerpts from Section I of the July 23, 1993 FAQs release fron the White House. Section II,Searching and Retrieving White House Documents and Section III, How to send e-mail messages to the White House will appear in subsequent issues of NetTEACH NEWS)

I. HOW DO I SIGN UP FOR ELECTRONIC PUBLICATIONS BY THE WHITE HOUSE?

The White House Communications office is distributing press releases over an experimental system developed during the campaign at the MIT Artificial Intelligence Laboratory.

You can obtain copies of all the press releases from a wide variety of on-line services or discussion groups devoted to either national politics in general or President Clinton in particular. These are listed in sections I and II.

Section Ic explains how you can sign up to receive press releases directly from the experimental MIT system by using an automated email server. The present system was not designed to handle high levels of message traffic. A more powerful system will become available in due course, and in the meantime, it would be appreciated if you used this service sparingly. One appropriate current use is secondary redistribution and archiving. If you use it, you will be carried forward when the more powerful system that replaces it.

A.WIDELY AVAILABLE SOURCES

1. On USENET/NETNEWS, electronic publications are found on a -variety of groups:
    - Direct Distribution
        - alt.politics.clinton
        - alt.politics.org.misc
        - alt.politics.reform
        - alt.politics.usa.misc
        - alt.news-media
        - alt.activism
        - talk.politics.misc
    - Indirect Distribution
        - misc.activism.progressive
        - cmu.soc.politics
        - assocs.clinton-gore-92
2. On CompuServe: **GO WHITEHOUSE**
3. On America Online: keyword **WHITEHOUSE or THE WHITEHOUSE or CLINTON**
4. On The WELL: type **whitehouse**
5. On MCI: type **VIEW WHITE HOUSE**
6. On Fidonet See Echomail **WHITE-HOUSE**
7. On Peacenet or Econet: See **pol.govinfo.usa.**

B. NOTES ON WIDELY AVAILABLE SOURCES

(contains information on Compuserve, AOL, and MCImail)

C. DIRECT EMAIL DISTRIBUTION

If you don't have access to the these accounts or if you would prefer to receive the releases via email, then the next section details how to sign up for this service. The server is not set up to answer email letters, comments or requests for specific information. To reach this MIT server, send email:

To:Clinton-Info@Campaign92.Org
Subject: Help

The server works by reading the sub-ject line of the incoming message and taking whatever action that line calls for. If you want to sign up to automatically receive press releases, then your subject line would begin with the word RECEIVE. You can then specify what kind of infor-mation you are interested in receiving. The categories of information are:

ECONOMIC POLICY Get releases related to the economy such as budget news, technology policy review, etc.
FOREIGN POLICY: Get releases related to foreign policy such as statements on Bosnian airdrop, Haitian refugee status, etc.
SOCIAL POLICY: Get releases related to social issues like National Service (Student Loan) program, abortion, welfare reform, etc.
SPEECHES: All speeches made by the President and important speeches made by other Administration officials.
NEWS Transcripts of press conferences released by the White House Communications office, as well as the President's remarks in photo ops and other Q&A sessions.
ALL All of the above So, if you wanted to sign up to get releases related to the economy your email message would look like this:

To: Clinton-Info@Campaign92.Org
Subject: RECEIVE ECONOMY

When you send a signup message to the clinton-info server, it sends you back a status message letting you know what distribution streams you are signed up for. If you ever want to check on what groups you are signed up for send the following message:

To: Clinton-Info@Campaign92.Org
Subject: STATUS

You can also ask for help from the automated server. Send an email query as follows:

To: Clinton-Info@Campaign92.Org
Subject: HELP

The server will respond by sending you a detailed form that will guide you through the process of signing up for the various distribution streams. As you will quickly discover, there is a automatic form processing interface that parallel the quick and easy subject line commands discussed here. More detailed help is available by sending,an email query as follows:

To: Clinton-Info@Campaign92.Org
Subject: Please Help!

Finally, if you want to search and retrieve documents, but you do not have access to the retrieval methods discussed in section II, you can do this via email through the MIT server. You can obtain the WAIS query form by sending an email query as follows:

To: Clinton-Info@Campaign92.Org
Subject: WAIS

Once you have identified the documents that you want, be careful not to request them all at once, because you may be sent a message containing all the documents and this message may be too big for some mail delivery systems between the email server and you.

INSTITUTIONAL PROFILE: APICNET

by Yoko Kaneko
<kaneko@apic.or.jp>

In 1989, the Association for Promotion of International Co-operation (APIC) conducted a feasibility study for the construction of an international computer network as a tool for Human Resource Development in the Asia-Pacific region This study established the feasibility of building the network in the Asia-Pacific region and proposed the construction of APICNET.

APICNET (Asia-Pacific Interactive Communication NETwork) was created to help define Japan's future role in the emerging political economy by promoting a global education that 1) advances a deeper understanding of Japan and the World, 2) nurtures the imagination and creativity necessary to help create a new and better world, and finally 3) recognizes the necessity of international cooperation in solving the significant problems faced by all the nations of the globe.

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APICNET Activities

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APICNET activities include:

- Collecting and disseminating information on the use computer networks for educational activities.
- Facilitating Japanese participation in worldwide educational programs.
- Supporting the development of Japanese educational programs that seek international participants.
- Promoting communication between foreign students in Japan and Japanese students (Japanese language and mother tongues of foreign students will be used).
- Providing foreign students with information necessary for them to live and study in Japan.
- Facilitating access of overseas learners of the Japanese language and studies.
- Holding computer conferences on other educational topics.
- Gathering and providing information on international cooperation and interchanges and Non-government Organizations (NGOs) activities using global computer networks.
- Facilitating communications between different development aid agencies, such as, for example, government agencies and NGO's.
- Encouraging exchanges of opportunity information, between international exchange agencies.
- Holding computer conferences on topics relating to international cooperation and exchanges.

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APICNET PROJECTS (1993)

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Electronic Sister School Project

APICNET launched the Electronic Sister School Project in November 1992. This project links Japanese and overseas schools via the Internet and calls for daily communication between students.

The focus of communication is deter-mined by the participants and can be a smiple penpal arrangement or preferably involve a collaborative study of a significant issue such as environmental pollution.

APICNET helps to find partner schools and to facilitate the implementation of the projects.

What's Japan? & What's America?

In the fall of 1992, APICNET launched the pilot for the program, Understanding Different Cultures in a Borderless World: What's Japan. Some 1400 participants from 36 schools in 8 different countries were involved in the project.

The project calls for the Japanese students to send a "what's Japan" package to the U.S. students and the U.S. students to send a "What's America?" packagae to the Japanese students.

Five senior high schools in the US and Japan and approximately 50 students from each school will participate in this year's "Electronic Forum" In effect, the classrooms will be linked on daily basis via the Internet.

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For more information about Apicnet and the various projects contact:

Yoko Kaneko

NetTEACH NEWS 13102 Weather Vane Way, Herndon, VA 22071 kmr@cnri.reston.va.us +1 703-471-0593 ISSN 1070-2954

BIRDS, from p.2

Tell us what you have on your table in order to attract birds. Record your sightings on a survey sheet that can be sent electronically to other schools. Name and describe birds you see and anything which is particularly interesting to others.

MEMORIES OF

Moderator - Tom Holloway
<t.holloway@warwick.ac.uk>

More than 2,000,000 (two million) young people passed through England during the years 1943 and 1944. They came from America, Australia, Canada, Ceylon, Fiji, France, Papua, Poland. They found an England quite different from the one we know today.

We would like children everywhere to ask Senior Citizens who were in England during those years to tell their impressions and experiences and to send them to

MEMORIES@sjuvm.stjohns.edu

As part of this project we hall have regular online discussions on the St Johns University, New York, UNIBASE system.

INTRODUCING

Moderator - Anne Pemberton
apembert@vdoe386.vak12ed.edu

An excellent first project for the new user. Students are paired and each student should write a formal letter of introduction about the other, to be sent to our friends abroad via:

Introduc@sjuvm.stjohns.edu

We recommend that it should be about 30 lines long, and that it should follow this pattern:-

Paragraph One — a brief description of the student X
Paragraph Two — the interests/opinions of X
Paragraph Three – an amusing story about X (gentle fun perhaps?)
Paragraph Four – the strengths/talents of X.

THE EMPIRE INTERNET SCHOOLHOUSE

by Peter Scott
<aa375@freenet.carleton.ca>

NYSERNet provides the **Empire Internet Schoolhouse** as an extension of its **Bridging the Gap** program. **Bridging the Gap** promotes collaboration and partership in the educational community to meet the needs of students and educators at every level. **Empire Internet Schoolhouse** provides a selection of K-12 resources, projects and discussion groups from every corner of the Internet community.

As new users of the Internet, teachers and students face a steep learning curve to becoming Internet navigators. **Empire Internet Schoolhouse**, through a simple gopher menu, addresses this "gap" in new user experience by providing useful resources for the classroom.

The Empire Internet Schoolhouse provides resources for new K-12 users:

The *Assembly Hall* is for discussion groups and posting of current projects.

The Career And Guidance Center provides access to New York State College ad-missions systems and a Q&A system to consider college and work transitions faced by high school students.

The Library & Internet Reference Tools contains reference services and Internet information.

The Academic Wings provide subject-oriented information tools, resources and projects.

The School Reform & Technology planning center provides the information on school reform and technology planning.

The *EMail* facility allows **Schoolhouse** users to communicate reactions and suggestions to NYSERNet.

Finally, *Fieldtrips to Other School Systems* allow users to travel by "telnet" to other Internet school and educational systems.

We hope you enjoy your visit! Please send requests for additions to **Empire Internet Schoolhouse** or postings of upcoming curricular projects to Marion French at:

<mfrench@nysernet.org >

OR TELNET NYSERNET.ORG
or 192.77.173.2 l
login: empire

and use the Email option within gopher menu to post a message.

Gophers At Work--AND ARMADILLOS TOO

ARMADILLO--The Texas Studies Gopher

One of the Best Little Educational Gophers in Texas and in the world is actually called ARMADILLO. Texans will tell you that Armadillo's are cute little creatures--cuter than gophers--and that like gophers they burrow into the ground but with a special tenacity given the difficult environment in which they work.

ARMADILLO is an appropriate name for the Texas Studies Gopher and the history of its development shows what can be done by a group of teachers with a vision and a willingness to commit themselves to change.

In 1991, several Texas middle school teachers wondered aloud if things could and should be done differently in a world of hypercards, cd-roms, and global networks. In early 1993, these teachers and others from 12 Houston Independent School District Middle Schools applied to the Texas Education Agency (TEA) for a waiver from the rule that they purchase a textbook for each child enrolled in Texas history. TEA granted a waiver that allowed these teachers to use a combination of textbooks, multimedia instructional materials and Internet resources. As a result, Armadillo was created.

If you have a few moments, it is definitely worth a visit to Armadillo. To access the armadillor, via gopherspace follow the following map:

```
Other Gopher and Information Servers/
 North America/
      usa/
         texas/
      the RiceInfo gopher/
         Information by Subj.Area/
                    Education/
                          Armadillo/
```

You've arrived when you see:

```
       Armadillo, the Texas Studies Gopher
              (under construction)
1. About Armadillo (The Texas Studies Gopher
from HISD).
2. More About Armadillo and Other Gophers/
3. Fact and Fiction About Armadillos/
-> 4. Developmental History of Texas Studies
Project/
 5. **Texas Studies Instructional
     Information and Resources** /
 6. Human Resource Development
   Opportunities/
 7. Library Services and Resources/
 8. Other Gophers of Interest to
   Teachers and Students of Texas/
 9. Super Projects!!!/
10. Technology Help and Multimedia
   Software and Lessons /
11. Weather Information/
12. What's Happening/
13. Work in Progress/
```

I then suggest you take a trip to the Development History of the Texas Studies Project. Here's what you see when you get to the opening.

```
Developmental History of Texas Studies Project
   1. About the HISD Texas History Textbook
Waiver.
  2. Texas History Textbook Waiver.
->3. About the Texas Studies
  Multimedia Project Proposal.
  4. Abstract-Texas Studies
  Multimedia Project Proposal.
  5. Introduction-Texas Studies
  Multimedia Project Proposal.
  6. Objectives-Texas Studies
  Multimedia Project Proposal.
  7. Purposes-Texas Studies
  Multimedia Project Proposal.
  8. Plan of Operations-Texas Studies
  Multimedia Project Proposal.
  9. Steering Committee-Texas Studies
  Multimedia Project Proposal
```

If you are sufficiently impressed when you finish your visit to Armadillo--as I am certain you will be-- then you can join Armadillo-watch--an electronic forum established by the Armadillo developers to help guide the development, construction and feeding of Armadillo.

TO SUBSCRIBE to the list: send a message to:

armadillo-watch-equest@chico.rice.edu

In the body of the message say:

Subscribe armadillo-watch, Your first name Your last name, Your school or affiliation, Your school district.

Comments and critiques about Armadillo can be addressed to the list armadillo-watch@chico.rice.edu or privately to the management by email to <armadillo@chico.rice.edu>.

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Bloomfield High School Gopher

The Bloomfield Hills School District Model High School, in Michigan. has a gopher that is also certainly worth a visit to especially if you are considering putting together your own school gopher. To access the gopher, follow the following gopherspace map:

```
Other Gopher and Information Servers/
    North America/
        usa/
        michigan/
            ->Bloomfield Hills School
   District Model High School/
```

When you've arrived you will see the following:

```
   Bloomfield Hills School District Model High
                    School
-> 1. *** Comments ***.
   2. What is Model High School?/
   3. What's happening at MHS?/
   4. Basic Reference/
   5. Electronic Art/
   6. FTP Sites (from U of Minnesota)/
   7. Humanities Resources/
   8. Libraries (from U of Michigan)/
    9. Network and Database Resources
(from Michigan State)/
   10. USENET news and weather/
   11. Other Gophers/
   12. 000 - 999 Reference/
   13. Science Resources/
   14. Search the Internet/
   15. Social Science Resources/
   16. WAIS simple database   search/
   17. Internet Help/
   18. K-12 Resources (from NYSERnet)/
```

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The Instruction Corner:

One day a child was asked to send a postcard to a Grandmother in Connecticut. The child wrote a message and added the address in the proper place. However, the only words in the address were:

Grandma Smith
Connecticut

We smug adults laugh to ourselves, and then turn on our computers ready to send out our e-mail messages to the world and find ourselves committing the same errors of omission as that young child. For some reason, the neophyte networker fails to grasp the importance of correct addresses. Perhaps, they believe that the omnipotent computer will somehow read their minds. Instead they find a series of undeliverable messages rejected because of <host unknown>.

Internet addresses are similar to postal or "snail" addresses in form and function. Without attention to a proper order, messages simply do not get through and are even returned sometimes by a "postmaster" The address starts with the person (or users) name followed by "@" , followed by the host (or computer) name and address. For example,

kmr@CNRI.reston.va.us
krutkows@tjhsst.vak12ed.edu
kathy@kame.media.mit.edu
kathy@chaos.psi.com

It is essential that "@" separate the user from the computer name and address (domain). It is also essential that all the "." (dots) be put in the right places and not omitted-an omitted dot will result in an undeliverable message as quickly as an omitted domain. The user's name is simply the user's identification on their computer system (identification and not password). It can be a first name, the initials of a name, or a combination of last name and first name initial, In our examples,

Kathy
KMR
krutkows

The domain tells you the name of the computer system (or host machine)and computer address which can include the location or the kind of organization. In our examples, the computer system names would be:

"CNRI"
"tjhsst.vak12ed"
"kame"

The computer address consists of either the location:

<reston.va.us>

or the organization:

<psi.com>
<mit.edu>

Some of the organizational domains commonly used include:

COM —Commercial organizations
EDU –Edu. & research institutions
GOV —Government agencies
MIL —Military agencies
NET —Major network support centers
ORG —Other organizations
US —U.S. geographical domains

The computer system's name and address are called it's Fully Qualified Domain Name, or FQDN. Generally, upper and lower case letters make no difference in an address. Every computer also has a numerical name–an Internet number or IP Address. This consists of a 32-bit number that is most commonly represented as four numbers joined together by dots ('.'). Despair not- IP addresses are only important to the computers and routers; people work with FQDNs and user names.

**A reminder to sloppy touch typists- watch those "," commas and "." dots. IT MAKES A DIFFERENCE!

Public-Access Gopher Burrows

Access to Gopher is available by using telnet to access one of the following systems:

Hostname	IP #	Login	AREA
consultant.micro.umn.edu	134.84.132.4	gopher	North America
gopher.uiuc.edu	128.174.33.160	gopher	North America
panda.uiowa.edu	128.255.40.201	panda	North America
info.anu.edu.au	150.203.84.20	info	Australia
gopher.chalmers.se	129.16.221.40	gopher	Sweden

The Electronic Book Store: To Buy OR BROWSE

$$$ 📖📖📖 The Internet Passport: Northwestnet's Guide to Our World On-line. 4th ed. By Jonathan Kochmer and NorthWestNet, Bellevue, WA: NorthWestNet,1993; 516pp; ISBN 0-9635281-0-6; Retail Price-.@$39.95 ea. Discount price for schools, colleges, universities, and Not-for-Profit Orgs is @$19.95 ea, and discount price for NorthWest Members is @$16.95 ea. For purchase inquiries send a message to:

e-mail: passport@nwnet.net
voice: (206) 562-3000
fax: (206) 562-4822

A comprehensive guide to the Internet. There is a good K-12 section. Definitely a serious browse and a good buy especially with discounts.

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$$ 📖📖 The Children's Machine – Rethinking School In the Age of the Computer by Seymour Papert. Basic Books, New York, 241 pp, ISBN 0-465-01830-0. The Retail Price $22.50.

Papert's insight into the nature of knowledge and learning is interesting and instructive although at times he gets caught up in jargon. My major criticism is that he only briefly discusses the potential benefits of networking technologies to the learning process and seemingly fails to recognize the essential role these technologies are playing in revolutionizing schools worldwide. A must for the logo and constructionist fans and a suggested browse for all educators.and parents.

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$$ 📖📖 !%@::A Directory of Electronic Mail Addressing & Networks by Donnalyn Frey and Rick Adams. O'Reilly & Associates, Inc. Sebastopol, CA., Third Edition; 458 pp, ISBN 1-56592-031-7. Price $24.95.

This is an excellent book for researchers, system administrators, and anyone who uses e-mail extensively. There is an introduction to e-mail for beginners and a description of over 180 networks with the services provided. There is also an index to second and third level domains and many sites within each network. A definite MUST SEE and a good buy for those of you who enjoy global travel in cyberspace.

$$$ 📖📖📖 The Mac Internet Tour Guide-by Michael Fraase. Ventana Press, Chapel Hill, N.C.;1993; 290 pp.; ISBN 1-56604-062-0; Suggested Retail Price: $27.95. For further information, contact Diane Lennox, 919/942-0220; ; e-mail: dilennox@aol.com

A good navigational guide to the Internet for Mac users.The Mac Internet Tour Guide is softcover, illustrated and accompanied by an 800K disk containing a variety of utilities.

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🗀🗀🗀 Internet Resource Directory for Educators Update Available Version 2 of the Internet Resource Directory for Education is now available for anonymous FTP transfer at:

tcet.unt.edu

in the subdirectory path:

pub/telecomputing-info/IRD

The IRD has four sections, each contained in one of the following four ASCII text files:

IRD-telnet-sites.txt	(226K)
IRD-ftp-archives.txt	(73K)
IRD-listservs.txt	(201K)
IRD-infusion-ideas.txt	(202K)

The Internet Resource Directory for educators was the result of research conducted by some 24 eastern Nebraska teachers and 22 teachers and trainers from Texas who were enrolled in graduate Internet-based telecomputing courses during the Spring 1992 & 1993 semesters at the University of Nebraska at Omaha and the University of Texas at Austin. These graduate students compiled much useful information on the Internet and present it in a manner that is geared for educators.

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🗀🗀🗀"Domesticating Cyberspace" by Gary Stix in **Scientific American**, August 1993, Volume 269, Number 2. pp 100-110.

Mr.Stix has written a good piece on Internet developments. There is a short section on stories from "The Net" and two well-known k-12 networking teacher pioneers, Bruce Daley and Ferdi Serim, are quoted. Take a look at the charts on p.106 and you will quickly see that we are indeed in the midst of technological revolutionary period.

BEST COPY AVAILABLE

The Digital Calendar

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August 1993

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17-20, The third International Networking Conference of the Internet Society **INET'93** will be held at the Hyatt Regency San Francisco, 5 Embarcadero Center. The conference will focus on global issues of research and academic networking. University, industry and government representatives from around the world will be gathering to discuss important issues related to planning, implementing, managing and funding national, regional, and international networks. For more information:

INET '93
Conference Registration Office
PO Box 27171
Akron, OH 44319
1+216-425-8333
1+216-963-0319 (fax)
E-mail:
registration@inet93.stanford.edu

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20-25 TeleTeaching 93 International Conference and Exhibition; Trondheim, Norway; Conference Secretariat, TeleTeaching '93, Norwegian Computer Society, P.O. 6714, Rodelekka, N-0503 Oslo, Norway; 47 2 37 02 13; fax 47 2 35 46 69; Email TELETEACH@AVH.UNIT.NO

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23-27 Association for the Advancement of Computing in Education, AI-ED '93, World Conference on Artificial Intelligence in Education, Edinburgh, Scotland; AI-ED '93, c/o Helen Pain, Department of Artificial Intelligence, University of Edinburgh, 80 South Bridge, Edinburgh EH1 1HN Scotland; ph. (31) 650-2719/20; fax (31) 650-6516; Email: AIED93@aisb.ed.ac.uk.

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25-27.....INTEROP93, Moscone Center, San Francisco, CA INTEROP is the world's leading forum for the presentation of internetworking products and services. More than 450 firms are expected to exhibit in San Francisco. An extensive program of technical sessions is also available, along with numerous tutorials. For more infomation: call 1-800-488-ATTEND (1-800-488-2883) or send a fax to 415-949-1779.

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28-31 Fourth European Logo Conference, Euro-Logo '93, "Logo-Like Learning Environments: Reflection and Prospects"; Athens, Greece; Trianena Congress, EUROLOGO 93, Harilaou Trikoupi 24,Athens 106 79, Greece;
ph. 3609511-15;
fax 3607962.

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September 1993

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30-31 **Seventh Annual Distance Education,Training and Ineractive Technology Conference,** "Over the Rainbow: Educational .Innovation Through Technology"; Augusta, ME; Bob MacVane, The Division of Community and External Programs, University of Maine at Augusta, Augusta, ME 04330-9410;
ph. 207/621-3170.

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30-Oct. 2 NYSERNet Conference '93 in Rochester, NY. Requests for NYSERNet '93 conference info should be sent to: **conference@nysernet.org**
Please include your US Mail address. Full conference brochure is scheduled to be sent US Mail in mid-August.

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October 1993

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27-30. **"Distance Education: Sharing the Experience,"** in Portland,Oregon. The conference will provide a professional forum for distance education ractitioners to exchange practical strategies and applications. Conference sessions should examine issues such as how to promote and model inter-institutional partnerships, incentives to move faculty toward adoption and advocacy of technology-based instruction, critical administrative and instructional support services, regulatory policies and legislation which affect distance education, and evaluation of administrative, fiscal, and instructional efficiency of distance education programs."For information contact: Don Olcott at fax no. 503-737-2734 or <olcottd@ccmail.orst.edu> .

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November 1993

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29- 1 Dec. **TELECOTTAGE'93** Pan Pacific Hotel, Gold Coast, Queensland, Australia. Telecottage '93 will be the first Telecottage symposium to be held in Australia and will be a landmark event. For more information contact: Conference Administrator: Winkler Marketing Services Pty Ltd,P.O. Box 889, Kenmore, Queensland, 4069, Australia. Tel + 61-7-878-3358 Fax + 61-7-878-2689

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10-13 Second International Symposium on Telecommunications in Education, **Tel-Ed '93,** to be held at InfoMart in Dallas, TX, USA.The Tel-Ed '93 symposium, "Global Connections", For more information, contact: Lynne Schrum, Program Co-Chair Voice: 518-564-2122/Fax: 518-564-4069
Schrumlm@splava.cc.platsburgh.edu

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What's New in CyberSpace?

Net-Happenings and Net-Resources

The InterNIC Information Services created two new listservs,.

net-happenings@is.internic.net an announcement-only listserv moderated by Gleason Sackman, and

net-resources@is.internic.net which replaces 'nis@is.internic.net' 'Net-resources@is.internic.net' distributes only new resources. 'Net-appenings@is.internic.net' distributes other network information services type announcements, such as tools, conferences, calls for papers, news items,new mailing lists,electronic newsletters, and the other isignificant information.

Contributions to both mailing lists should be sent to net-happenings or net-resources. And, comments, suggestions,and opinions should be sent to:

Susan Calcari
susanc@internic.net

Gleason Sackman
sackman@plains.nodak.edu

To subscribe to either list, send mail to:
<listserv@is.internic.net>

and in the body of the message type

subscribe net-happenings your name
or
subscribe net-resources your name

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Early Childhood Education On Line

Goals of Early Childhood Education On Line include the support of Early Childhood Educators, and the children they serve, through information exchange at a variety of levels. From practical issues and questions related to caring for young children, to information about top quality early childhood programs, and applications. Examples of discussion areas include: Schedules, Holiday Ideas, MultiCultural Ideas, , Child-Centered/Project Approach to Learning, Learning Styles/Teaching Styles, Appropriate Uses Of Computer-Based Technologies. To subscribe send a message to:

Listserv@Maine (Bitnet) OR
Listserv@Maine.Maine.Edu

In the body of your message, type:
Subscribe ECEOL-L your first name, your last name

For further information, contact :
<BonnieB@Maine.Maine.Edu > or
<BonnieB@Maine> (Bitnet)

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International Counsellor's Network

The International Counselor Network has some 40+ counselors, counselor educators, and other educators around the world who are sharing ideas, resources, materials, etc. To join send an e-mail message to Ellen Rust
< ruste@ctrvax.vanderbilt.edu>
or post a message to the group by using this address:
<ruste+counselors@ctrvax.vanderbilt.edu.>

COMMERCE DEPARTMENT OPENS EBB TO THE PUBLIC VIA THE INTERNET

The Commerce Department's Economic Bulletin Board (EBB) will be accessible through the Internet without charge between July 26, 1993 until September 30, 1993. During this introductory period, the EBB will be available via telnet. To access the EBB, telnet to EBB.STAT-USA.GOV and login as TRIAL; no password is required.

The EBB is a one-stop source for current information from the Department of Commerce, Department of Labor, Treasury Department, the Federal Reserve Board, and many others federal agencies. Over 2,000 files covering topics such as gross domestic product, employment, foreign trade information, financial and monetary indicators, and regional statistics, are available. You can search for files among the following general topics: Summaries of Current Economic Conditions, U.S. Treasury Auction Results , National Income and Product Accounts, Regional Economic Statistics, Major Economic Indicators , Energy Data Price and productivity Data, Daily Trade Opportunities (TOPS), Foreign Trade Data, International Market Insights, Industry Sector Analysis , Current Business Statistics, Industry Statistics, Fiscal and Monetary Policy Data, U.S. Trade Representative Press Releases , Employment data, Bureau of Export Administration Notices , Special Studies and Reports, For more information, please call (202) 482-1986 or send E-mail to
<awilliams@esa.doc.gov>

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NetTEACH NEWS is a newsletter for K-12 networking teachers. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, *and major international, national, regional,* and state programs and policies relevant to K-12 networking. It will hopefully become a platform to many varied personal and collective travels to new "networlds" for educators around the globe. and a pathway to many *global living learning viillages.*

NetTEACH NEWS is published ten times a year.

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Send submissions and subscription queries to:
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13102 Weather Vane Way
Herndon, VA 22071 U.S.A.
email address: kmr@cnri.reston.va.us

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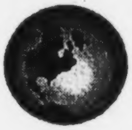

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NetTEACH NEWS

Volume 1, No. 4 The Newsletter for K-12 Networking Teachers September 1993

The Art of California Cooking and the Vision of K-12 Internetworking

Kathy Rutkowski kmr@chaos.com

> California's fertile land and the waters of the Pacific Ocean yield an abundance of ingredients for San Francisco's chefs. Local wines, fish, and produce are but a few of the products available. This bounty is matched by a diversity of cooking styles and international cuisines that provide an enriching interchange of ideas and cooking methods. (Introduction to Great Chefs of San Francisco, AVON, 1984)

Dining on California cuisine is to experience the best of California and the best of the World in one delightful dish. California chefs are world masters in the art of combining the world's most exotic spices, oils, and vinegars with California's finest indigenously-grown vegetables, fruits, spices, and wines. California cuisine is a virtual adventure to exotic lands and the best possible use of native resources.

When we look to the future of K-12 networking we could do well to look to the art of California cooking. The essential ingredients parallel:

◆◆a subtle sophistication and advanced understanding of world cultures and world resources;

◆◆a firm indigenous pride and identity that is based on an honest evaluation of the uniqueness and inherent value of native resources;

◆◆a certain creative boldness that searches for new combinations and different approaches;

◆◆a clear vision of ultimate purpose and intent;
◆◆a true labor of love.

Currently, most K-12 internetworking is at an apprentice stage. Many networking teachers are using canned commercial projects offered by Tere Laboratories via National Geographic's Kidsnet or by AT&T's Learning Link. Others are using free projects created by teachers and distributed by non-profit associations like the FrEDMAIL Foundation, the Copen Fund, and Academy One. There are some teachers who are innovating on a very limited basis and developing some extremely interesting native products. We are truly in a period of learning.

We should be careful , however, not to mistaken current products as the future vision. What will appear in the future will be something beyond our current imagination and far richer than our current knowledge and experience allows.

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NetTEACH Ken Blystone is living the future with his students as together they create schools without buildings.

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Last month we looked at how to receive e-mail from the White House and this month we find out how to search and retrieve White House information.

AN INET'93/INTEROP Report..p.5

Internetworkers and vendors from around the world converged in San Francisco in August and for the first time the interest in the K-12 Community was evident.

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The school year is beginning and many non-profit and commercial networking K-12 projects will be launched during the next several weeks. Here's a quick quide to some of the more major "project" organizers.

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Time to make reservations for TEL'ED'93 and TELECOTTAGE'93.

Suppliers of K-12 Projects...p11

A Listing of the major commercial and non-profit K-12 networking project suppliers.

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Those that would lead us to believe that the only future for the k-12 community is in "commercial networking packages" I believe fail to understand the tremendous synergistic powers these technologies will release at the operational level, i.e. students and teachers.

Truthfully, K-12 internetworking is now constrained by the traditional structure of school, traditional role assigned to teacher and student, traditional methods of accountability, and by a lack of sophistication and worldliness, i.e. knowledge of global knowledge sources, and finally by technological and informational constraints. Higher-end connectivity is not widely available to teachers and students worldwide and not all of the more exotic and significant information resources are yet available online.

For these reasons, there exists a definite and significant need for projects that are largely externally-produced by commercial or non-profit organizations. Likely, there will always be some demand for these products because of time and limited resource considerations. However, the revolutionary vision is one that sees the major transference of power to teacher and student in regards to project development and implementation.

If one assumes that teachers can never become Master internetworking chefs, then it logically follows that the future world will not be radically different than what we now see. However, there is a strong body of evidence to suggest that that's just not the case. There are teachers around this country who are already proving themselves to be creative geniuses in the art of internetworking and that is remarkable given the fact they are accomplishing this under extremely restricted and adverse conditions.

Imagine some of the teachers of today who are blazing networking history with the potential freedom offered by a nurturing support structure and a non-adverse environment. Just imagine what you could do in your classroom if you had high-end connectivity, adequate numbers of work-stations, and the luxury of time to spend as a mentor rather than a test coach and monitor. Just imagine what you could do if you could be the teacher you want to be---the one with the opportunities to be a constant seeker of knowledge and explorer and with the creative freedom to use that knowledge and experience with your children to create subtle learning environments.

Can it happen and will it happen? Of course, it can happen, and indeed it will happen if teachers begin to live the future today. The struggle to educate school boards, administrators, communities, and indeed national and international governments and major corporations is just beginning. Most misunderstand teachers and teaching and most will only see you based on their perceptions that teaching is not an art but a trade and is not a profession for bold creative geniuses but for practitioners.

Teaching is and should be a profession for bold creative geniuses and at best it was an always will be an art. A societal expectation and acknowledgment of these qualities of teaching is essential if we as a society are to meet the challenges of the information age.

We can no longer fake it and create generations of learners who simply regurgitate concepts or facts and figures that society via teachers have implanted in their brains. We need to create a generation of insatiably curious learners.

Already the political economy recognizes that academic "degrees really have no significance and meaning in terms of predicting the ability to contribute. What seems to matter more is adaptability and a certain combination of boldness, innovativeness, creativity and a passion to experience life and learn. Industry is suggesting now that perhaps what should matter most in the classroom is not the mastery of a proscribed course of study but the ability to use the knowledge obtained through study and blend it with intuitions and other internal forces to create masterful delightful creations.

Teachers must become master chefs in order to train a new generation of master chefs. Otherwise, we will continue to see a mainstream workforce that is fearful of change and unable to adapt to new challenges. We cannot afford to hope for random creative geniuses to jumpstart our economy but need to create an environment that truly supports and nurtures the creative urges that exists in all individuals regardless of their "academic aptitudes" and chosen trades and professions.

Teaching like cooking is a labor of love but there is one significant difference----cooking looks to satisfy only in the present and teaching looks to touch the future. I believe that the teachers of today are working miracles in their classroom kitchens and will responsibly lead the way for the teachers of tomorrow to become unfettered true masters in the art of k-12 internetworking. They can't do it alone and need the support of an enlightened educational leadership that liberates and facilitates the teacher creator, i.e. The California master chef.

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NetTEACH SPEAKS:
Building A School Without Buildings

by Ken Blystone <blystone@tenet.edu>

Thousands of students in El Paso, Texas are going to school without leaving home. They "travel" to school via computer modem, meeting in new electronic hallways and classrooms not because they have to attend, but because they want to.

This summer, students from all parts of the city will attend the Academy Virtual School. This new electronic school provides kids of all ages a fun and exciting place to gather. It is a safe environment that can3 be explored from home under parental supervision, and local public schools are starting to catch on to the concept.

Over the past decade, telecomputing activities have become highly popular with children. This has caused rapid growth in local, regional, and national educational computer networks. Computers attached to modems allow computer users to transmit and receive text files, software programs, digitized images, and digital music over standard telephone lines. Such activities are becoming commonplace for computer users, especially for young people who have computers in their homes.

Public schools have recognized the need to teach students how to use computers and have installed many machines for this purpose. But the educational use of computers has focused primarily on using the computer in a "stand-alone" fashion. Now, more and more schools are beginning to connect their computers to instructional networks by purchasing modems and linking their computers together through the telephone system. Schools have found that it is easy and relatively inexpensive to start a campus-based computer network.

Last school year, five public schoo3ls in El Paso started educational campus-based systems run by teachers. Del Valle High School, Wiggs Middle School, Desert View Middle School, Indian Ridge Middle School, and Eastwood Heights Elementary each run a campus computer their students can call. Each school system is connected to FidoNet, a 22,000 member computer network that started in 1984.

FidoNet is a "grassroots" network that provides connectivity for millions of people all over the world at little or no cost. The UTEP College of Education sponsors a system on this network to allow future teachers the opportunity to be mentored by experienced teachers. Since many of the electronic conferences on FidoNet are "gated" to Internet, many non-university people(parents and public school children) now have access to Internet through FidoNet.

In 1990, a group of teachers in the United States and Canada started the International K12 Network. Operating as a subset of FidoNet, the K12 Network has spread to nearly 500 systems in 12 countries in only three years. By "piggybacking" the smaller K12Net on the larger structure of FidoNet, students and teachers are the winners.

Using school computers connected to FidoNet/K12Net, students and teachers have the ability to form friendships with people all over the world. The familiar term "pen-pals" is changing into "key-pals" since children now use keyboards instead of pens to write to each other. Teachers from around the world volunteer their time and expertise to make the system work.

The French teacher at Desert View Middle School, Toy Wong, uses the K12 Network in her classroom to help students learn the language and culture of France. Her students are encouraged to write e-mail messages in French to students in France or Canada. After students in France receive messages from students in El Paso, they respond in English (the language they are trying to learn) through the computer network.

Since messages are transmitted electronically, it is usually only a matter of hours before the mail is "delivered." This makes the process of key-paling much more interactive than pen-paling since hand delivered letters to distant countries can take days or even weeks to deliver.

In addition to using computer networks for key-pal activities, schools have found many other instructional benefits of telecomputing. Students can use modems to tap into electronic libraries to look up information stored in computer databases. Some systems allow students to take tests on-line that are automatically scored and recorded.

See Building, p 6

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Frequently Asked Questions About the White House Electronic Publications and Public Access E-Mail

(What follows constitutes excerpts from Section II of the July 23, 1993 FAQs release fron the White House. Section II, Searching and Retrieving White House Documents and Section III, How to send e-mail messages to the White House will appear in next month's NetTEACH NEWS)

II. HOW DO I RETRIEVE WHITE HOUSE PUBLICATIONS FROM INTERNET ARCHIVES?

Various sites are archiving the press releases distributed. What follows is an incomplete list of some of the sites containing the documents that have been released to date. This FAQ will be updated to reflect new sites as they become known.

SITE DIRECTORY

1. SUNSITE.UNC.EDU
pub/academic/political-science/whitehouse-papers
2. FTP.CCO.CALTECH.EDU
/PUB/BJMCCALL
3. FTP MARISTB.MARIST.EDU
4. CPSR.ORG /CPSR/CLINTON
5. FedWorld Online System 703-321-8020 8-N-1 or: Telnet fedworld.doc.gov

Notes: The following are notes on how to log in and get information from the above sites.

1. Office FOR Information Technology at University of North Carolina Maintains the full collection of White House electronic release available for search with WAIS and also accessible via Gopher and FTP.

1.a WAIS

```
(:source :version 3 :database-name
" /home3/wais/White-House-Papers"
 :ip-address "152.2.22.81"
:ip-name "sunsite.unc.edu"
:tcp-port 210 :cost 0.00
 :cost-unit :free
:maintainer pjones@sunsite.unc.edu"
 description "Server created with WAIS release
8 b5 on Feb 27 15:16:16 1993 by
            pjones@sunsite.unc.edu
```

These are the White House Press Briefings and other postings dealing with William Jefferson Clinton and Albert Gore as well as members of the President's Cabinet and the first lady Hillary Rodham Clinton, Chelsea, Socks and others in Washington DC. Dee Dee Meyers and George Stephanopoulos. Other good words: United States of America, Bill Al Tipper Democrats USA

US These files are also available via anonymous ftp from sunsite.unc.edu The files of type filename used in

the index were:

/home3/ftp/pub/academic/political-science/whitehouse-papers/1993 ")

Folks without WAIS clients or gophers that act as WAIS clients may telnet to sunsite.unc.edu and login as swais to access this information via WAIS.

1.b GOPHER is a distributed menuing system for information access on the Internet developed at the University of Minnesota. gophers are client-server implementations and various gopher clients are available for nearly any computing platform. You may now use gopher clients to access the White House Papers and other political information on SunSITE.unc.edu's new gopher server.

You may also add links from your local gopher server to SunSITE for access to the White House Papers.

For gopher server keepers and adventurous clients to access SunSITE you need only know that we use the standard gopher port 70 and that our internet address is SunSITE.unc.edu (152.2.22.81). Point there and you'll see the references to the Politics areas.

For folks without gopher clients can telnet to sunsite.unc.edu to try out gopher acess. You need to have access to internet telnet and:

```
telnet sunsite.unc.edu
login: gopher
```

The rest is very straight forward. Browsing options end with a directory mark (/), searching options end with an question mark (?).

There's plenty of on-line help available.

2. No special instructions.

3. The CLINTON@MARIST log files which contain all the official administration releases distributed through the MIT servers are available via anonymous FTP. These logs contain in addition to the official releases, the posts that comprise the ongoing discussion conducted by the list subscribers.

To obtain the logs:

FTP MARISTB.MARIST.EDU - the logs are in the CLINTON directory and are named CLINTON LOG9208 thru CLINTON LOGyymm where yymm stands for the current year and month. Problems should be directed to my attention: URLS@MARISTC.BITNET or URLS@VM.MARIST.EDU.

Posted by Lee Sakkas - owner, CLINTON@MARIST

4. Computer Professionals for Social Responsibility is providing all Clinton documents on technology and privacy at the CPSR Internet Library, available via FTP/WAIS/Gopher at cpsr.org /cpsr/clinton (and in other folders as relevant). For email access, send a message with the word "help" at the 1st line of text to <listserv@cpsr.org>

5. The FedWorld Computer System, operated by the National Technical Information Service, archives White House papers in a traditional BBS type file library. Connect to FedWorld by calling (703) 321-8020. No parity, eight data bits and one stop bit (N-8-1). FedWorld accommodates baud speeds of up to 9,600. It is also possible to Telnet to FedWorld at FedWorld.doc.gov. White House papers are located in the W-House library of files. To access this library from the main FedWorld menu, <enter <f s w-house>. Files are named with the first four digits being the release month and day (e.g. 0323XXX.txt). Some standard abbreviations after the date include:

rem - Remarks by the President
pc - Press Conference transcript
pr - Press Release
AM - AM Press Briefing
PM - PM Press Briefing
sch - The President's public schedule
spch- Text of major speeches.

These files are saved in ASCII format. Files can be viewed online by requesting to download a file and then selecting (L)ist as the download protocol. This will display the file a screen at a time. White House papers are kept in the above format for up to two months. Papers more than two months old are compressed using Pkzip into a single file that contains all of the files for that month (e.g. 0193.zip contains all papers released during January 1993). In addition to White Documents, funded BBSs and computer systems.

INET'93 and INTEROP'93: K-12 is "Hot" On the Streets of San Francisco

By Kathy Rutkowski <kmr@chaos.com>

In the world of Internetworking, INET's and INTEROP'S are the BIG events. This year, INET'93 was held in San Francisco from August 17-20. Two-thirds of all the INET participants came from outside the US. In total, there were some nine hundred "internaughts", representing 570 different companies, 84 different countries, 6 UN Organizations and a delegation from Tibet.

A week later, INTEROP'93 pushed San Francisco's lodging to it limits. Over 70,000 people converged on the Moscone Center from August 23-27. Some 400 of the world's most important network computing and open systems companies exhibiting there at what is acknowledged to be the largest trade show for network computing and open systems technologies. and services.

These are Grand Slam events for the Big League players--the world's movers and shakers in the global networking political economy. Mike Nelson, the Networking Czar of the Clinton Administration was at INET to deliver closing remarks, Vint Cerf--one of the founding fathers of the Internet--spoke at both events, and CEO's from some of the most powerful companies could be found on the floor of Interop and at INET sessions.

Historically, the user communities have not been well represented at either event and to a large degree this remained the case. However, this August there was a notable change in the air and the talk on the streets and in the corridors was about empowering new user communities. K-12 is fast emerging as a key user community.

At INET'93, a whole session was devoted to Global Networks and K-12 Education. The session was chaired by Bruce Nelson, the K-12 Program Manager for Novell and the Co-Chair of the Internet Society's K-12 Committee. Bruce noted the significance of the session--the first whole session to devoted to K12--and the growing realization on the part of government and corporate leadership Bruce suuggested that K12 is perhaps not the best term to describe the community and that in fact many are suggesting K-to-grey. He also revealed plans to convene a Pre-INET'94 Educators Workshop in Prague, Czechoslovakia in June 1994.

Others speaking at the INET K-12 Session included Bob Tinker, the Founder of TERC Laboratories--the folks that bring you Global Lab and the National Geographic Kidsnet--who spoke about how educational networking can best meet educator's needs and suggested the continuing importance of "commercially-packaged projects".

The wonderful Ken Klingenstein of the University of Colorado and one of the architects of the Boulder Valley Internet Project delivered a brilliant expose on the critical issues and choices in bringing internetworking to the schools and revealed some of the insights gained through the experience of the Boulder Project (A whole article will be devoted to his speech in an upcoming issue of NetTEACH NEWS).

Peter Copen, head of the Copen Family Fund, took a long look at the audience and then asked that each person seek out a stranger and talk about your favorite teacher. In a wonderful moment, barriers broke down, strangers became almost instant friends and there was a notable electricity in the room that wasn't there before. It is that electricity that is behind all the marvellous efforts undertaken by the Copen Project to bring children together around the world. (More to follow on the Copen Project in a subsequent issue--It is something to check out and participate in!)

Following the INET K12 session there was a BOF (Birds of the Feather) session on the planned INET'94 Pre-Conference Workshop of Educators. The intent is to bring some 40 educators from the US to Prague and meet with teachers from around the world in a hands-on workshop covering all aspects of internetworking.

INTEROP did not devote a whole session to K-12 but INTEROP President Dan Lynch did personally invite the ever popular, knowledgeable and vibrant Tracy LaQuey Parker, Manager Market Development for Cisco Systems, Inc. and author of the Internet Companion, to hold a BOF Session of K12. Tracy assembled several speakers and directed a most interesting INTEROP BOF that clearly will put K-12 in the minds of many corporate planners.

Carol Teach and David Wasley of the California Education Network discussed some of the significant problems they face and innovative solutions they are advancing in connecting the numerous schools in one of the largest public educational systems in the world.

Ben Colley of the Missouri Research and Education Network (SHOW-ME) talked briefly about the technological choices as well as some of the unique problems in connecting schools in a State with schools located in some very remote regions.

See INTEROP BOF next page

BUILDING Global Communities of Learners from page 3

Students also use telecomputing to work collaboratively on the creation of digital artwork and music. Most K12 Network systems make free educational software available to teachers and students through a process known as downloading. On-line peer tutoring is possible on multi-line systems. Callers type back and forth to each other while connected to the system. This has become one of the most popular activities for students ages 10 through 18 on the Academy Virtual School. Students spend many hours on-line each day writing to their electronic friends.

Every day a virtual school can present the student with new and interesting challlenges that come from a worldwide community of learners.

The Academy serves eight school districts in west Texas. Its success can be measured, in part, by the extent to which local teachers and students have voluntarily embraced this computer-mediated environment. Over 5,000 students, teachers, parents, and community participants meet in this electronic environment without the need for a physical school building.

The Academy is operated by Academy Network Systems, a non-profit organization dedicated to enhancing educational opportunities for students to learn and teachers to teach via modern telecommunications technology. The system gets approximately 30,000 calls per month. Through the work of many dedicated teachers and community volunteers, the Academy Network has grown from a simple single line system started in 1985, into a dynamic 15 line electronic school built out of modems and microchips instead of bricks and mortar.

The impact of computer telecommunications on how we conduct education is likely to be greater than we can presently imagine. As a virtual school, the Academy is radically different from traditional schools. It remains open 24 hours a day, 365 days a year. Students read lessons, take tests, ask questions and ggin to explore the electronic global village.

Modems and the instant networks they create can join schools, businesses and homes together. Every minute a child spends in an electronic virtual school is a minute spent reading and writing--interacting with an educational community that is global in scope. Electronic schools are interactive, inclusionary, equalizing, provocative, and educational.

Electronic virtual schools are dynamic and, most importantly, affordable. Electronic learning environments are changing the way in which children learn. Every day a virtual school can present the student with new and interesting challenges that come from a worldwide community of learners.

INTEROP BOF SESSION ON K12 from page

George Ward of Cisco Systems Inc. talked about ARZnet and some of the excellent efforts in the state of Arizona to connect schools and communities.

The most interesting talk was given by Kevin Carney of Amadahl who spoke as a parent networking volunteer leading an effort to bring the Interent to his children's public elementary school. Kevin suggested that it is time to adopt a new economic model for connecting schools, one that recognizes the major economic benefits to be gained in connecting schools to the Internet. He suggests that both K-12 networking activists and the corporate world must understand that schools have something to sell and that the corporate World must take note and work together with the K-12 community to create model projects and provide the "seed" money and support necessary to bring about K12NET, Inc.

Lastly, yours truly, Kathy Rutkowski, revealed a new paradigm of the Global Schoolhouse that identifies the critical elements--the information producers/distributors: the information regulators; the information facilitators, and the information users. The critical message is that we are just beginning a period of tumultous change and can expect many conflicts as networking is introduced into the educational system and is used to facilitate much needed changes in the political eocnomoy of education. The potential social and economic benefits to be realized in the future living learning communities , however, are most certainly worth the struggle .

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WHERE in the World Are There Interesting Networking Projects and Opportunities????

by Kathy Rutkowski <kmr@chaos.com>

Okay, you have a computer or computers with connections to global networks, so now what do you? You've heard all these wonderful things about Global Schoolhouses and the Virtual Classrooms. You and your children are ready, willing, and able. So now what, where, and how?

These are the questions that many of you educators are facing for the first time this year. You are the fortunate ones who in fact enjoy connectivity. Most educators don't.

However, privilege carries a price tag and there is hard work–don't let anyone kid you–involved in putting together meaningful projects and effectively integrating networking into the classroom and classroom curriculum.

There is help out there to get you started and give you some useful hints. There are commercial vendors already set up and operating who will deliver you tried and true projects that will instantly link your school to schools across the globe. The National Geographic Kidsnet, GLC's WorldClassroom, and AT&T's Learning Link are perhaps the most pop-ular commercial programs.

Of course, these vendors do charge for their services. NGS Kids Network charges $450 for an 8-week session, and ATT&T Learning Network charges $375 per 15 week session. An Internet semester subscription to WorldClassroom costs $275 and a standard subscription costs $396. The commercial providers provide the structure that many educators particularly beginners or those with excessive demands on their time require to put together a successful telecommunications program.

There also non-profit K-12 networking project providers, most notable, the FrEDMAIL Foundation, The Copen Fund, KIDSNET, and ACADEMY ONE. Many of the projects offered were actually developed by classroom teachers. These projects are posted on various mailing lists and there are no charges to participate in the projects. Volunteers work with the classroom teachers to manage the project and distribute the information to the participating schools.

The FrEDMAil Foundation of Bonita California has many interesting projects to choose from. GEOGAME, NEWSDAY, and GALA are popular and repeated each year. There are constantly new projects being developed. Last year, the Global Schoolhouse Project was launched that linked schools across the country and world in an environmental project.

The Copen Fund offers some excellent socially-relevant activities for students worldwide through its I*EARN, PLANET and GLOBE projects. This year in recognition of the year of indigeneous people I*EARN is sponsoring the FIRST PEOPLES Project.

K12NET is a grassroots effort that uses BBS's and offers various Echomail conferences on a variety of subjects as well as a whole slate of projects dealing with many subject areas. This network enables many schools that do not enjoy internet connectivity to engage in telecommunications worldwide for relatively low costs.

ACADEMY One run by the Cleveland Freenet is source of wonderful projects some of the most popular being, Kids Trek, the NPTN Student News Network, and the International Club.

For many of you very lucky teachers, you need only look to your friendly state public network systems such as Virginia's VaPEN, Texas's TENET, Florida's FIRN, and North Dakota's SENDIT. These networks have their own unique project areas in which to find interesting and exciting projects, sometimes of a global nature and sometimes of a more local interest. VaPen, for example, has established Pavilions on various subjects, for example the Space Pavilion, the Multicultural Pavilion, the Math Pavilion, and the History Pavilion. Various projects can be found in those pavilions.

Some government agencies have established educational bbses that sometimes suggest projects or at least offer expertise in project development. The most popular of these is NASA's spacelink. There are others such as the NEWTON–a BBS for students and educators established by the Department of Energy's Argonne National Laboratory.

Finally, there are mailing groups and lists that carry information about projects that are created by other teachers on their own, or in collaboration with a few others initially and more subsequently. Most importantly, these listings will carry information about YOUR proposed global project to other teachers and schools around the world who might be interested. Kidsphere is perhaps the most active and notable promoter of classroom-generated projects. However, there are well over 2000 mailing groups out there covering various subjects and any of the lists will likely have a least one teacher or interested person who could approach a teacher or school on your behalf.

Ultimately, you will want to create your own projects with your students and other teachers and students from remote sites. There is something about internetworking that does bring out the innovator in all of us. Nonetheless, you have a supermarket out there and your choices are many–use them all and find a combination that works for you.

In the following months, NetTEACH NEWS will feature many if not all of these various commercial, non-profit, public, and outstanding individual or small group providers of K-12 networking projects. On page 11, you will find a listing of the more popular non-profit /commercial providers of K-12 networking projects with contact names and addresses, and on page 9, some useful reference books are noted in the NetTEACH Bookstore.

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The Instruction Corner: For Novice Users
Mailing Lists and Listservs

Electronic mailing lists are communities of networked individuals brought together to discuss areas of common interest. They are also referred to as discussion lists or listings, or email groups.

SRI International–a non-profit technical research and consulting organization located in Melon Park that tries to keep count of these lists and each year–noted some 800 mailing lists in its 1993 Internet Mailing Lists Guide. The count has been estimated as high as 2000.

The difficulty with statistics on lists in part stems from the ease with which a list can be established and maintained due to advanced computer distribution and management software and networking technologies. Some lists are small with only a handful of subscribers whereas others such as com-priv can easily have over a thousand subscribers at any given point in time. Subjects range from the bizarre to the commonplace. In fact, it is inconceivable that there DOESN'T exist a given list covering at least one subject area of interest to each individual in the world.

Mailing lists can be either moderated or unmoderated. In a moderated list, an individual determines who can join the list and/or what messages can be posted. An unmoderated list is an open list that anyone can join and freely send unfiltered messages to.

How To Subscribe to an Internet List

To subscribe to an email list on the Internet, you send a subscription request to the list's administrative address. In most cases, the administrative address differs only from the list address in that a `-request" is affixed to the end of the listname. Hence to subscribe to the popular listing Kidsphere using the Internet, one would send a subscription request to <kidsphere-request@vms.cis.pitt.edu>. The actual list Internet address of Kidsphere is <kidsphere@vms.cis.pitt.edu>.

In the main body of the letter you would write
SUBSCRIBE <your name>

A Listserv

A LISTSERV is a distribution list management package that runs on a BITNET computer (or BITNET node). The software allows the computer to perform various services such as subscribing and unsubscribing users, posting and archiving messages, and various other functions. Anyone who can send electronic mail to a BITNET/EARN address can participate in a mailing list maintained by a LISTSERV. You can send mail from the Internet, Compuserve, MCIMail and America On-Line to a Listserv.

A host which has a LISTSERV server will have the address LISTSERV@host. For example, EDNET–a discussion list about the potential role of networks in education–is found on the nic.umass.edu computer system and its address is listserv@nic.umass.edu.

To subscribe to a list that uses a LISTSERV, you must follow certain conventions. First of all, all commands such as subscribe, unsubscribe, signoff, etc are sent to the listserv address and NOT the mailing address. So for example, to subscribe to EDNET, you would send a message to <listserv@nic.umass.edu>. You then receive a message from the listserv given you instructions worth filing away.

Major Educational E-Mail Lists

CoSN–an open, online discussion on issues of importance to K-12.
Send an electronic message to:
listserv@bitnic.bitnet
Include the following information in the body:
subscribe COSNDISC <full name>

◆ ◆ ◆

EDNET–a list for those interested in exploring the educational potential of the Internet. The list moderator is Prescott Smith. To subscribe, send an e-mail message to:
listserv@nic.umass.edu
First line in body:
Subscribe Ednet <full name>

◆ ◆ ◆

EDTECH–created to provide a forum to discuss information and issues concerning education technology. To subscribe send an e-mail message to:
listserv@ohstvma
Send the message:
SUB EDTECH <FUll Name>

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Kidsphere–formerly Kidsnet –has been in poration for five years. The purpose of this mailing list has been to facilitate the development of computer networks for children and teachers around the world. To subscribe send an e-mail message to:
kidsphere-request@vms.cis.pitt.edu

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K12ADMIN provides a forum for discussions that focus on topics of interest to the K12 administrator community. The list is open to all school administrators and people involved with school administration. To subscribe, send an e-mail message to:
listserv@suvm.syr.edu
Include the message:
subscribe K12ADMIN <Full Name>

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LM_NET–discussion group for school library media specialists. the list is operated by Mike Eisenberg and Peter Millbury. To subscribe, send an e-mail message to:
listserv@suvm.syr.edu
Include the message:
SUBSCRIBE LM_NET <Full Name>

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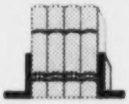

The NetTEACH Electronic Book Store: To Buy, or Browse

SSS 📖📖📖 **An Incomplete Guide to the Internet and other Telecommunications Opportunities Especially for Teachers and Students K-12** Compiled by the NCSA Education Group, July, 1993.

This document is a resource guide and how to manual for beginner and intermediate users of the Internet, as well as an excellent reference for advanced users. The Incomplete Guide is available via anonymous ftp or in hard copy format.

To ftp the Guide, go to zaphod.ncsa.uiuc.edu or ftp.ncsa.uiuc.edu and look in the education directory. In there is a directory called Education_Resources. In there you will find a directory (Incomplete_Guide) that contains several different formats of the Guide and a README file. Please note that most of the different formats are about 1.5 Megabytes.

If you do not wish to ftp the Guide, you can contact the Education Group at NCSA to have a hard copy sent to you. There is a charge for this which will cover the cost of materials and shipping ($22 plus $5 for shipping within the US). The guide is approximately 300 pages.

For more information contact:
Chuck Farmer
NCSA Education Group
605 E. Springfield Ave.
Champaign, IL 61820
cfarmer@landrew.ncsa.uiuc.edu
e-mail: passport@nwnet.net
voice: (206) 562-3000
fax: (206) 562-4822

The guide is divided into three parts: Part I. Introduction to the Internet; Part II, Tools for Using the Internet; and Part III. Projects, Ideas, and Resources. There is also an Archie, a Gopher, and a Veronica tudorial. A good buy.

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$$$ 📖📖📖 **Connecting to the Internet** by Susan Estrada. O'Reilly & Associates, Inc. Sebastopol, CA, 188 pages. ISBN 1-56592-061-9. The Retail Price $15.95 (US) Toll-free order number: 800/998-9938

Susan Estrada, the founder and former director of CERFnet has been involved with the Internet since 1985. The book gives you the information you need to make the appropriate decsions about connectivity.

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SSS 📖📖📖 **Learning the UNIX Operating System** by Grace Todino, John Strang, and Jerry Peek. O'Reilly & Associates, Inc. Sebastopol, CA., Third Edition; August 1993; 108 pp, ISBN 1-56592-060-0. Price $9.95.

A concise introduction to UNIX. The third edition has been updated for new UNIX systems and now covers basic networking commands, e-mail, and introduces the X window system.

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$$ 📖📖Internet: Mailing Lists edited by T.L. Hardie and Vivian Neou, PTR Prentice Hall, Englewood Cliffs, N.J. 1993; 356pp; ISBN 0-13-327941-3. US $26

A complilation of over 800 mailing lists and interest groups with guidelines for how to start your own group.

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📖📖📖"The Keyboard Becomes a Hangout for a Computer-Savy Generation" by John Markoff in the New York Times, Aug 31, 1993 p.1

A great article. Markoff writes, "The simple fact is that anyone today under 18 has never known a world without personal computers. And the technology is unfolding in ways more meaningful, and much less passive, than the televised global village that was held out as the informational ideal to an earlier generation." Right on, John.

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📖📖📖"Why Kids Love Computer Nets" by Elizabeth Corcoran in FORTUNE magazine, September 20, 1993 pp103-108.

Definitely read this article and leave some copies in the teachers' lounge as well as the principals office and PTA box. Here's a wonderful quote found in the article in a section entitled E-Mail from the younger generation,

"Our teachers tell us that we will be able to tell our kids that we were the first to communicate with other classrooms around the world without leaving our desks. This is more than just a school project, it's a sign of hope. What else can you call an exchange of ideas between three different countries and six different states?"
Scott Wilson, 17 of Harrisburg, Pennsylvania

The Digitial Calendar

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September 1993

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30-31 **Seventh Annual Distance Education,Training and Ineractive Technology Conference**, "Over the Rainbow: Educational Innovation Through Technology"; Augusta, ME; Bob MacVane, The Division of Community and External Programs, University of Maine at Augusta, Augusta, ME 04330-9410;
ph. 207/621-3170.

30-Oct. 2 **NYSERNet Conference '93** in Rochester, NY. Requests for NYSERNet '93 conference info should be sent to:
conference@nysernet.org
Please include your US Mail address. Full conference brochure is scheduled to be sent US Mail in mid-August.

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October 1993

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17-20 EDUCOM'93 in Cincinnati, Ohio The theme is Crafting New Communities. For more information, contact Ralph Katerberg (513-556-7003, fax 513-556-4891, Ralph.Katerberg@UC.EDU or Thomas Cruse (513-556-2985, fax 513-556-7861, Thomas.Cruse@UC.EDU

21-23 **Louisiana Association of Computer Using Educators (LACUE), "Technology on the Bayou: Let the Good Times Scroll";** Lafayette, LA; LACUE '93, USL Box 43827, Lafayette, LA 70505.

27-30. **"Distance Education: Sharing the Experience,"** in Portland,Oregon. The conference will provide a professional forum for distance education ractitioners to exchange practical strategies and applications. Conference sessions should examine issues such as how to promote and model inter-institutional partnerships, incentives to move faculty toward adoption and advocacy of technology-based instruction, critical administrative and instructional support services, reg-ulatory policies and legislation which affect distance education, and evaluation of administrative, fiscal, and instructional efficiency of distance education programs."For information contact: Don Olcott at fax no. 503-737-2734 or <olcottd@ccmail.orst.edu> .

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November 1993

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10-13 **TEL'ED 93 2nd International Symposium on Telecommunications in Education: Global Connections;** INFOMART, Dallas, TX; Paul Resta, Conference Co-Chair, Tel-Ed '93, International Society for Technology in Education, 1787 Agate St., Eugene, OR 97403-1923; 512/471-4014; fax 512/471-4607; Email: presta @utxvm.cc.utexas.edu.

29- 1 Dec. **TELECOTTAGE'93** Pan Pacific Hotel, Gold Coast, Queensland, Australia. Telecottage '93 will be the first Telecottage symposium to be held in Australia and will be a landmark event. For more information contact: Conference Administrator: Winkler Marketing Services Pty Ltd,P.O. Box 889, Kenmore, Queensland, 4069, Australia. Tel + 61-7-878-3358 Fax + 61-7-878-2689

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December 1993

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7-10 **CAUSE93, "Managing Information Technology as a Catalyst of Change";** San Diego, CA; 4840 Pearl E. Circle, #302E, Boulder, CO 80301; ph. 303/449-4430; fax 303/440-0461; Email: info@CAUSE.colorado.edu.

15-17 **1993 International Conference on Computers in Education (ICCE '93), "Applications of Intelligent Computer Technologies";** Taiwan; Dr. Tak-Wai Chan, Institute of Computer Science and Electronic Engineering, National Central University, Chungli, TAIWAN, 32054, R.O.C.; fax 886-3-4255830; Email: chan@ncuee.ncu.edu.tw. or chan@ncuee.ncu.edu.tw@twnmoe10.bitnet.

18-21 **International Conference on Computer Based Learning in Science (CBLIS);** Vienna, Austria; P. Nobar, International Conference on Computer Based Learning in Science, Computer Assisted Teaching Unit, Mechanical Engineering Department, Queen Mary and Westfield College, University of London, Mile End Road, London E1 4NS, England; ph 071-975 5555 (ext. 3048); fax 071-975 5500; or W. Kainz, Universitätslektor am Institut für Theoretische Physik der Technischen Universität Wien A-1040 Wien, Wiedner Hauptstr, 8-10. Austria; ph. 58801 5466-5467.

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March 1993

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16-19 STATE 94 SOCIETY FOR TECHNOLOGY AND TEACHER EDUCATION –Fifth Annual Meeting in Washington, D.C. This year's theme is "Methods and Models for the 90s." For information cont-act:STATE 94, AACE, P.O. Box 2966 Charlottesville, VA 22902 USA/ E-mail: AACE@virginia.edu, Voice(804) 973-3987; Fax: (804) 978-7449

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Major K-12 Networking Project Suppliers

Academy One: A National On-Line Educational Community

The Cleveland FreeNet was the initial host for Academy One . However, several state public education networks like VaPEN and SENDIT are hosting Academy One, in addition to many community networks in many municipalities around the world.

For information, contact either of the following:
John Kurilec at
<aa004@nptn,org

Linda Delzeit at
<aa002@nptn.org

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ATT&T'sLEARNING LINK

Learning Provides a supermarket of projects and network linkages with schools through the world.

For information contact,
800-367-7225

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CHATBACK INTERNATIONAL

Chatback is a free electronic mail service primarily for children with speech, hearing or learning difficulties. There are coordinators in twenty countries and the main base is at St. Johns University.

For more information contact:
Tom Holloway <xuegx@cvs.warwick.ac.uk>

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The Copen Family Fund, Inc.

The Copen Family Fund is supporting three significant Educational Programs: the I*EARN Project, the PLANET Project, and the GLOBE project.

For information on the Copen Fund and Projects contact:
The Copen Family Fund, Inc.
345 Kear Street
Yorktown Heights, New York 10598
(914)962-5864
<beth@copenfund.igc.apc.org>

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FrEdMAIL : Free Educational Electronic Mail Network

FrEdMail is a dynamic rapidly growing grassroots telecommunications network that links schools, students, and educators around the world. The Hilites mailing list posts FrEdMail projects. You may subscribe to Hilites directly by sending mail to:
<hilites@bonita.cerf.fred.org>

To post a project on hilites, or for more information call 619-475-4852 or send an e-mail message to fred@acme.fred.org

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IRIS On-Line Network:An OnLine Community of Educators

Iris has a full curriculum-oriented program of activities. IRIS itself is a non-profit association created by teachers for teachers. However, there is an annual subscription charge to cover networking costs. IRIS has a virtual Teacher Center, Student Center, Technology Center and a Welcome Center.

For information contact:
IRIS ON-LINE NETWORK
P.O. Box 29424
Richmond, VA 23242-0424 USA
Voice: (703) 243-6622

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K12NET

K12Net is a grassroots international telecommunications networking that seeks to provide a low-cost means for the "have not" schools to telecommunicate using low cost bbs technology.

For information contact: Jack Crawford, educational Technology Advocate, at the Wayne-Finger Lakes Teachers' Center, 3501 County Road 20, Stanley, NY, 14501, or phone (716) 526-6431

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KIDLINK

KIDLINK is the brainchild of Project Director Odd de Presno. On March 6th, 1993, the KIDLINK Society was founded. Membership in the KIDLINK Society is open to any person or organization wishing to support the purpose and goals of the KIDLINK Society. You do *not* need to be a member to participate in KIDLINK. All our activities are free.

If you want to help out with KIDS-94, or participate, send an e-mail message to:

kidlink-info@vm1.nodak.edu

or contact one of the local contact persons around the world. For a list of contact persons, send a request to:

LISTSERV@vm1.nodak.edu (or LISTSERV@NDSUVM1 on BITNET)

With the following commands in the TEXT of your message:
GET KIDLINK CONTACTS
You may also write to:
Odd de Presno at <opresno@extern.uio.no>

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MIT MEDIA LAB TELECOM PROJECT

MIT's Media Lab Telecom Project uses Logo and LogoExpress to facilitate collaboration between children around the world. Projects are created by the participant teachers and all are based on the Constructionist philosophy advanced by Seymour Papert.

For more information contact:
Sarah Dickinson
Media Lab/MIT
20 Ames Street
Cambridge, MA 02139
Voice: 617-547-1076
E-Mail: <sarah@media-lab.mit.edu>

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TERC Laboratories

TERC sponsors the TERC Kidnet sProject and the advanced version The Global Lab. Kidsnet is published by the National Geographic Society as the NGS Kids Network and targets fourth, fifth, and sixth grade students. Global Lab is geared for high school and college students.

For information about the Global Lab send an e-mail message to: <Jill_Carroll@TERC.edu> or call 617-547-0430. For information about National Geograhic Kids Network call 800-368-2728.

For more information contact:
TERC Communications
2067 Massachusetts Avenue
Cambridge, MA 02140 USA
(617) 547-043

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WorldClassroom

WorldClassroom is a global on-line computer education system that provides teachers and students worldwide with unique collaborative learning experiences. Curriculum is divided into: welcome, science, social studies, language arts and special projects. WorldClassroom is a site subscription.

For more information write to:
Global Learning Corporation
P.O. Box 201361
Arlington, TX 76006

or CALL 1-800-866-4452

NetTEACH NEWS is a newsletter for K-12 networking teachers. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It will hopefully become a platform to many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages*.

NetTEACH NEWS is published ten times a year.

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NetTEACH NEWS

Volume 1, No. 5 The Newsletter for K-12 Networking Teachers October 1993

The Tao of K12 Networking

Kathy Rutkowski kmr @ chaos.com

> We put thirty spokes together and call it wheel; but it is on the space where there is nothing that the usefulness of the wheel depends.
>
> We turn clay to make a vessel; but it is on the space where there is nothing that the usefulness of the vessel depends.
>
> We pierce doors and windows to make a house; and it is on these spaces where there is nothing that the usefulness of the house depends.
>
> Therefore just as we take advantage of what is, we should recognize the usefulness of what is not. **Tao Te Ching**, Chapter XI, translated by Arthur Waley

Frequently, I am asked the question, "why is internetworking important to the K12 community?" Usually I describe how this technology will facilitate major changes in the educational landscape. Recently, however, a newspaper reporter asked me this same question and I paused momentarily and thought about all the teachers and students I've met around the globe who are now internetworking. I wondered how they would feel going back to a world without global networks. What would school as it exists today be like for these students and their teachers if their network connections were shut down? What difference would it make, if any?

Certainly, the teachers would go on teaching and would have more leisure and sleep time since most sacrifice their lunch times, early mornings and evenings to networking and developing and implementing networking projects in non-supportive environments. Certainly, the children would continue to learn. They would still do the same sorts of things they did before computers were networked together globally. They would paint pictures, write stories, do scientific experiments, read books about foreign lands, and use computers to write and problem solve.

However, something would be missing and that something I suggest is the Tao of K12 Networking as opposed to the vision of K12 networking. It is important that we understand there is a vision and indeed a powerful vision of where networking can bring us but just as significantly we can't lose track of the fact that there is a networking reality that is operational in today's schools.

The Tao of K12 Networking is best described in qualitative ways like, it is the gleam in the eyes of a 25 year veteran of teaching who had experienced burn-out and then refound her passion for teaching through global networking technology, it is the willingness of the child in Geneva, Switzerland to be in school after hours to chat real-time with students from Jamaica Plains, Boston, it is the warm feeling of belonging that a disabled child in Virginia experiences when talking real time to another disabled child across an ocean, and it is the collegial feeling between the rural schoolteacher and the big city renowned university professor.

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Billie Huges tells us how some students in Arizonia spent their summer at a magical camp named MariMuse.

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Billiie Hughes, in the Camp MariMuse article which follows, describes the excitement of inner city children using networks to link to the MUSE. These are the kids who normally do not get excited by school and are not expected to flourish in any learning environment and yet in Camp MariMuse they were stimulated and did become passionate learners.

Sarah Dickinson, the Director of the MIT Media Lab LogoNet Project in her article, "LogoNet: The Child as a Global Traveler", describes how networks are enabling children in Switzerland, Costa Rica, Peru, Canada, Massachusetts, California, and Russia to become global travelers and by means of that travel to bridge social-economic and cultural barriers in order to forge friendships and create communities of learning.

There are many other children in schools around the globe that like the children in Camp MariMuse and the children in the LogoNet project are now empowered by these networks and are already learning in an exciting and interactive manner. Likewise the teachers involved in these projects are already teaching in an innovative and dynamic fashion. They are already experiencing the excitement of virtual community and are tapping into the real power of K12 networking.

Internetworking has changed these students and their teachers in ways immeasurable by any current standardized test. The experience has become a part of them and has changed the way they view the world and chose to live in it.

Kurt Hahn, the founder of the Outward Bound School said, "It is wrong to coerce people into opinions, but it is our duty to impel them into experience." Indeed, networking does not coerce but invites. It extends an invitation to the child, or to the adult to come and see the world through the eyes of other people and through this communication to find not just knowledge but also a philosophy of life. It is indeed an outward bound experience that enriches the inner self and entices the individual to genuinely and constructively communicate with the outer world.

Networking is perhaps most compelling because it offers empowerment. It permits teachers and students of all ages to become the true architects of their own learning experiences and environments. It unleashes their creative synergistic powers, supports true learning and encourages passionate and innovative teaching.

Laurence Miller in his review of Seymour Papert's, "The Children's Machine" writes, "Knowledge is gained, in Papert's view, by rolling up your sleeves, getting your hands dirty, and trying to build something". Networking teachers and students are rolling up their sleeves and constructing their own communities of learning. They understand firsthand that networks are the desirable present and the inevitable future of all lifetime learners.

Schools are not islands even if they try to be. The fact is that already students and teachers are being transformed by these technologies. Increasingly, schools will be challenged to exist in a world where networking is as commonplace as placing a telephone call. Society and students will judge the relevancy and efficacy of schools by their ability to prepare new generations to be effective information gatherers and producers. Today, school leaders can deny reality but tomorrow another generation of school leaders will have to account for the actions or lack of actions taken by the current generation.

Teachers are asked to nurture future generations of learners and school administrations and communities have an obligation to assist teachers to accomplish this mission by providing them with all the available tools that society has crafted to make the learning experience easier or more enriched. Networking technologies and other advanced technologies are the tools that this generation is contributing to mankind.

Networking technologies are significantly altering human society. The Tao of Global networking may not be easily perceived but it is real and powerful and it will not go away. The pioneer virtual communities that Howard Rheingold writes about in his new book, "The Virtual Community" will be followed by the mainstream settlements.

The critical question is not, "why is K12 networking important?" but rather "how can we best tap this tremendous power and use it to create exciting and viable learning environments for ALL teachers and learners and not just a fortunate few?"

EDITOR: Kathy Rutkowski

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Camp MariMUSE:
A Once and Future One-Room Schoolhouse

by Billie Hughes <bhughes@PC2.pc.maricopa.edu>

A handful of faculty at Phoenix College in the Maricopa Community College District have long dreamed of a huge, one-room school where college students, elementary students, senior citizens, and Internet surfers from around the globe could learn, explore ideas, and experience both the thrill and frustration of learning. After initial experiments that used MUSE with college students, Phoenix College--an urban institution in the heart of Phoenix-- took the plunge and entered into an electronic partnership with a Longview Elementary School. The goals of the partnership is to link the college with the elementary school to ensure more students from diverse backgrounds continue through the educational pipeline, eventually attaining a college degree. To be successful, the partnership strives to develop both students academic skills and student motivation to attend college.

Through experimentation, faculty at the college discovered that their students were captivated by the MUSE environment. Collaborative building project engaged students in problem-solving activities. One group of education students created an ideal school as a class project. The medium appeared to pull from students new levels of excitement and commitment to quality. Continually student commented on how much their reading and writing skills were improving. Something about the interactive nature of the environment that let them "do" instead of only read and write had a powerful effect on motivation and subsequently their learning. Being good writers instead of writing to meet course requirements became important in the shared, public space of MariMUSE. Some students began to carry thesauruses with them. Looking up words in dictionaries and library research for accurate content became common.

Seeing this level of engagement for college students led faculty to speculate on possibilities for using MariMUSE as the foundation of a kindergarten-age 99 learning environment. The text-based structure drew students into reading and writing. The interactive, creative components compelled students to return on their own time and to remain focused for extended periods of time. The question became, "Will elementary students with much more limited reading and writing skills also immerse themselves in reading and writing? Will students who have a history of negative experiences with reading and writing be able to get past the heavy text demands so they can develop new skills?"

The college approached a local elementary school with a highly diverse student body and a high rate of poverty within the idea. An enthusiastic principal and over-worked but intrigued faculty make the commitment to experiment with the possibilities. Together, the college and elementary school developed a computer camp in virtual space. Students, with the support of their teachers, college faculty and college volunteers learned to communicate with others around the country, to use electronic mail, discover information resources on the network, and to build their own space in the virtual community. In the process of doing this, students gained self esteem as well as skills in:

- Reading
- Problem solving
- Geography
- Following directions
- Beginning programming concept

The summer program with twenty seven 8-12 years olds was a resounding success. MariMUSE captured the attention and fascination of young children luring them into a world of reading and writing. Teachers and school administrators, who were initially a little skeptical, marveled at the creative of student writing within the MUSE and with the children's new emphasis on engaging in research and producing quality projects. Many of the children choose to create science-related projects. Caves with stalagmites and stalactites, and beaches with realistic descriptions of fish and sea creatures appeared. Children created mansions, cars, dogs, endangered species. They talked about careers and asked questions about world problems with on-line Internet volunteers. Writing and creating became natural and engaging activities. Children who initially wrote only two or three lines in their electronic journals were soon writing twenty-five lines. Faculty literally had to pry children away from the computer for cookies and milk.

For the summer project, the children were bussed to the college and used college facilities. During the forced breaks, children asked questions about college and many continue to ask questions this fall. They picked up college catalogs and proudly wrote their names on copies. The talked with the volunteers who held jobs as well as went to school. Many came to believe that they too could go to college.

See Camp MariMuse, page 6

LogoNet: The Child As A Global Traveler

by Sarah Dickinson <sarah@media.mit.edu>

The Logo Visual Telecommunications Project of the MIT Media Lab Epistemology and Learning Group began as a pilot project in 1989 with the Hennigan School in Boston and schools in Costa Rica and has grown into a global project involving schools in Russia, Switzerland, Peru, Canada, Costa Rica, Massachusetts, and California.

The schools are linked together via the LogoNet . Randy Sargent, an MIT Media Lab graduate student, designed the structure which enables Logo text, graphics, and digital still images to be transmitted via the Internet. The LogeExpress interface is a simple one that children as well as their adult mentors have little problem working with.

The various schools work together to create their own projects and MIT provides the technical support as well as provides all the participating teachers and students with their own accounts.

The hope is that telecommunications becomes a real and an integral part of these various learning environments and opens windows of new learning opportunities as well as cuts through the isolation that is so typical within schools today.

Breaking the Isolation

Schools appear as "islands" bounded too often by arbitrary districts and economic barriers and in that sense they are in effect a step removed from the mainstream of the society in which they exist. The World is most often represented through daily lessons with a map, globe, from geography and social studies books and from disassociated television newsclips.

A child typically goes back and forth to a school from a home a few blocks away. The child's learning experience is to a great extent dictated by the repetition of daily structured associations with family, teachers and through prepared class work. This pattern does not certainly allow much opportunity for the spontaneous discovery of and creative relationship building with the World, but rather produces a "ghetto mindset" which may exist across all social and economic strata.

The Internet provides a worldwide transportation route giving the child the opportunity to become a global traveler. This concept alone is indeed powerful! The child is offered the opportunity to make multiple associations across the globe crossing over the limiting "schoolbook only" defined images of children in other parts of the world.

Internetworking can be compared to an information chain—an organic "living" infrastructure not unlike the food chain which is meant to support the natural ecological balance on the planet. Building a communications network is a dynamic process involving many from diversely social and economic backgrounds.

In one project, students at the Pregny Campus of the International School of Geneva were able to talk in near-to real-time with students in the fourth grade Spanish bilingual class at Hennigan in Boston. All the barriers associated with time, location and moreover, "cultural differences" vanished when the children spontaneously talked with their "friends" about the day-to-day things that interested them. Spontaneously, the children began to discover new ways of thinking about themselves in relationship to others and other parts of thr world. They worked on joint projects about their neighborhoods and exchanged their writing and still video images with one another.

Logo Telecommunications as a Generative Process

The most striking phenomenon about the LogoNet is that it generates new relationships and new learning communities once the barriers of isolation have been broken. There are no strict rules for development—rather the history of the growth of many educational telecommunications networks such as Kidsnet is a result of the dynamics of interpersonal communications among the participants themselves.

Potentials are limitless! But what is most exciting is that this evolving network infrastructure among teachers, researchers and children is a direct result – not of technology alone—but of the deep felt need to communicate with others—to travel the world. It is driven by the people themselves and the computer is merely an "enabling" technology.

You cannot force people to communicate, but you can give them the tools to communicate freely with one another. Electronic telecommunications is intrinsically a horizontal process. "Educational network projects" which presume a hierarchic or centralized plan are doomed to failure because they destroy the very dynamics of the communications itself. In making the tools available via a non-hierarchic approach, network development becomes a continuous and evolutionary process.

In the LogoNet model, teachers and children design the projects and they decide when and with whom they want to communicate. They are in control and therefore appropriate their own "communication space". While this approach may seem slow to those who want to see "quick results", it is the only way one can build a lasting, viable and growing network.

This article is an excerpt from," LogoNet: The Child as a Global Traveler", a Paper contained in the Proceedings of the Logo Conference in Caracas, Venezuela , 1993.

Turning the Computer Into the Children's Machine: A Review of Seymour Papert's The Children's Machine

by Laurence Miller <JLMILLER@vm1.yorku.ca>

Today few people would question the importance of computers in the lives of children. However, as recently as the 1970s, it was considered radical even to suggest that computers can and should belong to children as much as to adults. Proposals such as this first established the reputation of Seymour Papert as a revolutionary thinker and innovator.

Papert is perhaps best known as the pioneer who developed the programming language Logo. What people often forget though is that Logo was created within the context of a broad program of educational reform, a program whose goal was what today would be called "the empowerment of children" although at that time even the word empowerment" as not part of ordinary discourse.

His notion was to put into the hands of children an unprecedented amount of power. It involved not only giving children access to the power provided by knowledge of computer programming but also by knowledge in general of mathematics and science.

Although Logo is widely used today, Papert's equally, if not more, revolutionary ideas of reforming the way we teach math and science have yet to be taken seriously by more than a handful of visionary researchers. These ideas are more than ten years old; nevertheless they still represent the cutting edge in educational research, far ahead of work by later, but more conventional, thinkers.

Readers excited by Papert's earlier work, **"Mindstorms"** (1980) may come away feeling disappointed by his most recent book, **"The Children's Machine"** (1993) The new ideas presented i Papert's latest work are quieter, not as bold, not as daring. What impresses the reader is less what is new and more what has stayed the same.

Papert and Logo have been the target of considerable criticism and controversy during the last decade, to the point that a less confident researcher would have made significant compromises. Papert has made some concessions to his critics. For example, Logo has been criticized in the past on the grounds that it favored boys but not girls (e.g. Hawkins, 1987). In his recent work, Papert has made a systematic effort to include more female research associates and to make Logo more "user-friendly" to girls. Many of the examples in **"The Children's Machine"** are taken from domains of experience which are likely to be more familiar to women, such as dance, cooking and the names of flowers. Still, Papert's commitment to the Logo language and to his original conception of good learning and educational reform has in its essence survived intact.

If there is one new powerful idea in this recent work, it is the concept of "Constructionism". The term itself is a deliberate attempt at the same time to appropriate and to parody the more familiar term "constructivism". Papert accepts most of the insights into the process of knowledge development proposed by Piaget and others who call themselves "constructivist"; nevertheless he resists the association with abstract philosophy and academic pretense that the term "constructivism" has recently acquired. Knowledge is gained, in his view, by rolling up your sleeves, getting your hands dirty, and trying to build something.

"The Children's Machine "is full of anecdotes about the kinds of constructions, physical as well as intellectual, that children can produce, when they have access to a tool as rich with possibilities, for example, as Lego Logo. Papert defines "constructionism" by opposition to a very different point of view that he calls "instructionism". The ideology of "instructionism" is implicit in the work of most people who call themselves "educational reformers" even though its presence is almost never recognized. The basic premise of "instructionism" is that the route to better learning must be the improvement of instruction. The constructionist" attitude is very different, oriented toward reducing the amount of teaching.

Papert recognizes however that you cannot simply eliminate teaching and leave everything else unchanged. What you teach, and how you teach must also be more powerful and more empowering.

The theme that children can learn what they need to learn without being taught recurs over and over in Papert's writing. It has been implicit since the beginning in the development of Logo and as well as in related work such as the "Micro-MUSE Project" created by Barry Kort and his associates. **"The Children's Machine"** offers a rich collections of examples to illustrate concretely how this process can take place in practice.

In the final chapter, Papert focuses his attention on the task of creating a sketch of how one may conceptualize educational reform that will grow out of thinking in terms of cybernetic concepts such as "negative feedback".According to Papert, the problems which confront our education system today are in many ways similar to the problems of the Soviet economy which led Mikhail Gorbachev to initiate his program of "perestroika" or "restructuring".

Papert recalls that in the old Soviet Union, supporters used to boast that every citizen had a job as well as a measure of social security. In a similar way, the large bureaucracies which presently govern the school systems are able to point out that every child receives an education and a certain degree of social protection.

As Papert sees the world, the only rational choice is to forge ahead in the encouragement of educational diversity. It is important as well that we maintain a dedicated commitment not only to expanding its benefits to all who want them but also to making sure that those who choose not to want them are making an informed choice.

The Children's Machine by Seymour Papert. BasicBooks, 1993. ISBN 0-465-01830-0

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel. +1 703-471-0593 ISSN 1070-2954

MicroMuse at MIT's AI Lab by Barry Kort <barry@kudzu.cnidr.org>

MicroMuse is a multi-user simulation environment based at MIT's Artificial Intelligence Lab. The system features explorations, adventures, and puzzles with an engaging mix of social, cultural, and educational content. For example, the MicroMuse Science Center offers an Exploratorium and Mathematica Exhibit complete with interactive exhibits drawn from experience with Science Museums around the country. A highlight of the Mathematica Exhibit is 'Professor Griffin's LogicQuest', based on Raymond Smullyan's classical puzzles about knights andknaves. The Narnia Adventure embeds challenging puzzles within a familiar children's classic. The Mission to Mars includes an elaborate tour of the red planet with accurate descriptions rivaling those found in National Geographic. Elsewhere, one can find a sailing cruise to the Virgin Islands which recreates the real-life adventure of the player who created it. Recently, an 8-year old student designed and built an Oz adventure based on movie version of that classic children's story, and a 9-year old contributor created a working model of Yellowstone National Park, complete with erupting geysers and a wandering moose.

For younger players, text-based virtual realities foster literacy skills: reading, writing, and composition, and technical skills such as keyboarding and spelling. For adolescent players, social interaction skills, interpersonal skills, and personality development emerge as primary activities. College students who are not computer science majors enjoy the opportunity to gain some computer literacy and try their hand at creating their own contributions to the cyberspace worlds, usually with the helpful guidance of friendly players with more experience. The more ingenious and inventive players design and build elaborate and powerful artifacts such as electronic newspapers, voice-mail recorders, and self-activated transit

Muse References

Barry W. Kort, "Computer Networks and Informal Science Education," T.I.E. News, ISTE (International Society for Technology in Education) Special Interest Group for Telecommunications, Vol. 2, No. 2, Spring 1991.

David Albert, "Cyberion City II – Inside and Outside: The Physics, Geography, and Astronomy of Tin Can Cities," explanatory document prepared for participants in MicroMuse, available by anonymous FTP from michael.ai.mit.edu, August, 1991.

MicroMuse Executive Council, "The MicroMuse Charter," available byanonymous FTP from michael.ai.mit.edu, revised January, 1992.

Janice Gates, "MicroMuse at MIT," MicroMemo to KidsNet, distributed on the InterNet's KidsNet Mailing List, Fall 1991.

Howard Rheingold, "Virtual Communities," Whole Earth Review, Winter 1988.

Howard Rheingold and Kevin Kelly, "The Dragon Ate My Homework," WIRED,Vol. 1, No. 3, Jul/Aug 1993.

Jacques Leslie, "MUDroom," The Atlantic Monthly, Sep 1993.

Camp MariMuse from page 3

The experience was transformational for teachers as well. They saw students who were previously uninterested in learning rushing through thelibrary doors to the college computer lab. They witnessed student seeking answers to questions, creating images with words, and focusing forextended periods of time on a single project. They also observed students demonstrate respect for others in new and positive ways. Shy students became more out going. Students with limited friend learned they were likable.

Teachers left with renewed enthusiasm for teaching. In fact, the teachers were so impress with the potential they asked the superintendent for permission to share their summer experience with the school board.

A common problem with traditional partnership is that faculty and students at the elementary school are isolated from faculty and students at the college. This physical barrier creates an artificial separation in the educational system and results in students from high at-risk environments having few role models who are college students and even fewer interaction with college faculty. MariMUSE changes all of this.

Early evidence from the pilot project provides substantial evidence that electronic partnership hold great potential for linking institutions and the people within these institutions. Based on the success of Camp MariMUSE, Phoenix College, the Maricopa Community College District, Longview Elementary and Osborn School District pooled resources to link the Longview to the college Internet node. As of mid September, the children from the summer program, their teachers, college faculty and students, and global Internet members of the MariMUSE community are once again linked in a shared learning environment. The college and elementary school continue to meet and plan for the future. They communicate regularly via e-mail and maintain their commitment to taking joint responsibility for ensuring more youngsters from under-represented groups develop the skills and motivation necessary to reach and succeed in college.

What's New
In Discussion Lists and in Educational Gophers?

BEHAVIOR is a discussion listing for those professionals who are concerned about behavioral and emotional disorders in children. To subscribe, send e-mail to:

<Listserv@asuacad.bitnet>

in the main body of the message write:

Subscribe Behavior (your name)

* * *

Chemistrytm is an unmoderated discussion listing for students in high school and college, and their teachers, whose interest (avocation, coursework or career) lie in the area of Chemistry. The group fosters the exchange of ideas and information on all topics related to chemistry. To subscribe to Chemistrytm, send e-mail to:

<chemistrytm-request@dhvx20.csudh.edu>

in the main body of the message write: **subscribe**

Owner: Oliver Seely **<oliver@dhvx20.csudh.edu>**

* * *

International E-Mail Classroom Connections is an unmoderated list for teachers seeking partner classes for international and cross-cultural electronic mail exchanges. This is list is for not intended to find individual penpals. To subscribe, send e-mail to:

<iecc-equest@stolaf.edu>

in the main body of the message write:

subscribe

To contribute, send a message to:

<iecc@stolaf.edu>

For more information, contact: Owner: Craig D. Rice at: **<cdr@stolaf.edu>**

* * *

MIDDLE-L is a discussion listing for anyone with an interest in middle school education. Subscription requests should be sent to:

<listserv@vmd.cso.uiuc.edu>

In the main body of the message write:

subscribe middle-l [full name]

Send a brief introductory note to the list when you've received confirmation of your subscription. List co-owners: Dianne Rothenberg **<rothenbe@ux1.cso.uiuc.edu>** Jim Rosinia **<jim_rosinia@unc.edu>.** If you have any technical questions contact Philip Meyer at **<pmyer@alexia.lis.uiuc.edu>**

Educational Gopher at Florida Institute of Technology

The FIT Education gopher is sponsored by the US Department of Education Educational Partnerships Program, Florida Tech's Academic & Research Computing Services Department, the Space Coast Center for Excellence in Mathematics, Science, Computers,and Technology, and various corporate partners.

It also involves a partnership with AskERIC and the FIT Education server will provide access to the AskERIC gopher.

To access the gopher point your client at:

<sci-ed.fit.edu 70>

or from the UMN master gopher the path to this gopher is: Other Gopher and Information Servers/North America/USA/florida/Education Gopher at Florida Tech

I suggest a journey to the Education Section, and there you will find the following menu.

1. Apple Computer Higher Education gopher server
2. Consortium for School Networking (CoSN)
3. ERIC
4. FIRN <TEL>
5. IBM ACIS Higher Education Information Server - IKE
6. Journal of Education Statistics Information Service
7. K12 Keypals Wanted
8. Mailing Lists, Usenet News, Archives
9. National Science Foundation Gopher (STIS)
10. The Chronicle of Higher Education
11. The Empire Internet Schoolhouse <TEL>
12. US Academic Position Network (Jobs)

Other Gopher and Information Servers/North America/USA/florida/Education Gopher at Florida Tech

The Server is under construction. If you find something exciting that you think might be appropriate for this gopher server or have any questions contact:. Kevin Barry, Instructional Resource Coordinator (Internet) US Depart. of Edu. Educational Partnerships Program

Internet: **barry@sci-ed.fit.edu**

Voice: (407)768-8000 x7235 Fax: x7598

The Instruction Corner:

Quick Reference Guide to the MicroMuse At MIT

by Rob Reilly <rreilly@mit.edu>

FIRST TIME USERS

To connect to the MicroMUSE you must have telnet access. If you do then you can type: **telnet michael.ai.mit.edu**

The login username is: **guest**

The login process when using the <michael.ai.mit.edu> computer is sluggish at times, so be patient. There are generally 20-60 users on at a given time. Once you have entered 'guest' as your 'login' name, just follow the prompts until you reach the "MicroMUSE at MIT screen". When that screen stops then type in:

connect guest

if you do NOT have a registered account/character, or

connect Bill glombat

if you have a registered character name of "Bill" and your password is "glombat"

REGISTERING AT THE MICROMUSE AT MIT

If you want to register on the MicroMUSE at MIT here are the instructions: If you are a guest and wish to register a new character on MicroMUSE, please send E-Mail to:

<micromuse-registration@chezmoto.ai.mit.edu>

Please provide your real name, your character name and password, your e-mail address, and if you are a NEW player and are requesting your first character. Also, please check to see if someone is already using the character name you have chosen by typing '**@whereis <character name>**'.

If you receive '<character name> does not seem to exist.' then you can use that name. If you already have other characters in MicroMUSE, please specify them also.

AVOID THE TRAFFIC - HAVE A CLIENT PROGRAM

Once you have been given an account on the MicroMUSE at MIT and you are confident that you will a frequent player you will want to avoid having to compete with everyone else that is logging into the MicroMUSE at MIT via the 'michael' computer. If you have a home directory on your host system you should consider installing a client program there so that you can bypass the login process at 'michael' and go directly to the MicroMUSE at MIT which is a a computer named 'chezmoto'. You will want to do this as the number of concurrent logins at 'michael' is limited. Having a client program on your host computer will virtually assure you of always being able to log in.

BASIC NAVIGATION

Much of the time you will see navigational prompts that contain the USEFUL COMMANDS. Here are some helpful commands to use when you are logged into the MicroMUSE.

- To exit the MicroMUSE at MIT type: **/quit**
- To talk with others in the same room you are in type:
  say hello there everyone
- This will cause everyone in the same room you are in to see a message from you saying 'hello there everyone'. Begin each message with the word 'say' as shown in the example above.
- To see a list users who are currently logged in type: **who**
- To page a user named gorzon98 and say 'Hello There. What's new?" type: **page gorzon98=Hello there. What's new?**
- To see and/or talk on the PUBLIC conversation channel type: **+ch +public**
- To see who else is on the channel you are connected to type: **=who**
- To say something on the PUBLIC conversation channel type: **=I am new here, where are you all from?**

This will cause everyone on the PUBLIC channel to see a message from you saying "I am new here, where are you all from? You *must* be connected to the PUBLIC channel in order to do this. To connect to the PUBLIC channel type: +ch +public

- To remove yourself from the PUBLIC conversation channel type: **+ch -public**
- To go back where you started from originally, type: **go home**
- To access the MicroMUSE's bank to open, deposit, or withdraw money,type: **help zone bank**
- To see how much money you are carrying around type:
- inv <- this amount does not include what you have in the bank - 'inv' will also show what else you are carrying.

MicroMUSE ONLINE HELP

- ▶ To get a general listing of help topics type: help
- ▶ To get a list of topics type: help topics
- ▶ To get a list of @commands type: help @commands
- ▶ To get syntax of help commands type: help syntax
- ▶ To get a list of commands type: help commands
- ▶ To get a list of flags type: help flags
- ▶ To get a list of official commands type: help offcommands

INTERESTING AND PLACES TO GO

Here is a list of interesting places to 'teleport' to. To teleport to various places at the MicroMUSE type: **@tel #xxxxxxx** ('xxxxxx' will be replaced by the actual number of the place you want to go to) Sometimes you will not be able to teleport directly to a given place. You must go to the Sector/Arc where the destination site is located. In the listing below sites with a '#xxxxxx' can be used with the @tel command. Sites listed in the form 'x/x' must be walked to by using the S, A, P or B (Spin, Antispin, Port, starBoard) commands.

Cyberion City Sites

Dest	Description
#30215	The Shuttle Station
#38226	Intelligent Automations Inc.
#42408	Mall Chamber A
#51634	Consumer Corporation offices
#6848	Cyberion City University
#53438	AntiGravitronLabs Inc
#29778	Cyberion City Phone Company
#6442	TechnoShack in the Mall
#44838	Puzzle Place
5/0	MicroMUSE Phantasy
5/0	Fantasy Central
1/0	Cyberion City University
2/0	Cyberion City Information Center

If you wanted to be teleported, for example, to 'Mall Chamber A' , you would type: **@tel #42408.** Note: You cannot use the @tel comand to go to or from places on Cyberion City to places on the Starship. Also note that some of these places may be locked and you may not be able to get there at all times. If this is the case you will be shown a 'permission denied' message.

***This is a condensed version of Rob's Reilly's Guide.

White House Electronic Publications and Public Access E-Mail : How to Retrieve The ASCII Version of the National Information Infrastructure: Agenda for Action

On September 15, 1993, the Clinton Administration released an"Agenda for Action" for the National Information Infrastructure. The document describes the role of the government in promoting the development of the telecommunications and information infrastructure by the private sector, and in ensuring that all Americans have access to this infrastructure.

All of you interested in promoting networking in the educational environment should pay attention to this article and be actively involved in ensuring that the future growth of the NII does indeed recognize the important and unique needs of the educational community.

The document is available in ASCII format through from a variety of electronic sources including the following.

How To Send E-Mail to the White House

You can send e-mail to:

President William Clinton at:
President@WhiteHouse.GOV

and to Vice-President Albert Gore, Jr. at:
Vice-President@WhiteHouse.GOV

(Note you will receive an immediate acknowledgement that the message has been received. A reply will be sent to you via snail mail so be sure to include a postal address in your message) This is excerpted from the WhiteHouse FAQ, July 1993

THE INTERNET

It is available in ascii format through e-mail, ftp, and gopher. The name of the file is "niiagenda.asc". Access information and directories are described below.

FTP Sites

<ftp.ntia.doc.gov>
Login as **"anonymous"**. Use your email address or guest as the password. Change directory to "pub".

<enh.nist.gov>
Login as "anonymous" using **"guest"** as the password.

<isdres.er.usgs.gov>
Login as **"anonymous"**. Use your email address or "guest" as the password. Change directory to npr.

The package also may be present in a self extracting compressed file named **"niiagend.exe"**. Remember to issue the binary command before transferring the compressed file.

GOPHER Sites

Telnet to: **gopher.nist.gov**
login as **"gopher"**. Choose the menu item "DOC Documents". Choose "niiagenda.asc".

<ace.esusda.gov, port 70>
In the following sequence, select: 6. Americans Communicating Electronically, 3. National Technology Information, 1. National Information Infrastructure Agenda

EMAIL Sites

Send a message to
<ace-request@ace.esusda.gov>
In the body of the message put: send niiagenda

Bulletin Boards

The document is also available from:

NTIA Bulletin Board
Phone: 202-482-1199
The coommunications parameters should be set to either 2400 or 9600 baud, no parity, 8 data bits and 1 stop bit. The package is available under the "press releases: menu item as "niiagend.asc" (ascii) and "niiagend.exe" (compressed—self-extracting).

Department of Commerce Economic Bulletin
Phone 202-482-1986 (voice instructions for subscription information). This is a "fee for service" bulletin board. Subscribers may download the "niiagenda" document for normal on-line charges. Non-subscribers may subscribe for $35 and download the report for no additional charge. Free telnet access and download services are available through the Internet by using the address: ebb.stat-usa.gov. Use trial as your user id.

FedWorld On-Line Information Network
Phone 703-321-8020. Communications should be set to either 2400 or 9600 baud, no parity, 8 data bits. To access "niiagend.asc: from the FedWorld menu, eneter "<f s w-house>". Telnet access is available through the Internet using the address: fedworld.doc.gov. Further information about FedWorld can be obtained by calling (voice) 730-487-4648.

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The NetTEACH Electronic Book Store: To Buy, or Browse

$$$ 📖📖📖 The Internet Navigator by Paul Gilster. John Wiley & Sons, Inc. New York, 1993 470 pages. ISBN 0-471-59782-1 (pbk.) US $24.95.

Paul Gilster has put together an excellent guide to exploring the Internet for individual dial-up users. Written in a style to appeal to the non-geek and geek alike.

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$$$ 📖📖📖 The Virtual Community: Homesteading on the Electronc Frontier by Howard Rheingold. A William Patrick Book, Addison-Wesley, New York, 1993. 325 pages. ISBN 0-201-60870-7. US $22.95. *The ever engaging Howard Rheingold has put together a fascinating book on the social significance of networking and internetworking. I'm in total agreement with Mitch Kapor —Founder of Lotus Corp and EFF— who in commenting on the book wrote, 'Howard Rheingold takes the reader on a Magical Mystery Tour of the human side of cyberspace.'*

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$$$ 📖📖📖 Teachers at Work: Achieving Success in Our Schools by Susan Moore Johnson. BasicBooks, 1990; 395 pages. ISBN 0-465-08363-3. US $12.95.

Susan Johnson takes a serious look at the context of teaching and suggests a clear agenda for school reform that identifies the significant role teachers must play in that process in order for any hope of success. She writes,"The reform of schooling and the school as a workplace are inseparable. If public education is to improve and responsibly serve an increasingly complex and diverse student population, it must be staffed by talented and committed teachers. The public cannot expect that those teachers will step forward in sufficient numbers to serve selflessly in schools that discourage their best efforts. If the quality of teaching is to be improved, then the school as a workplace must also be improved. Ultimately, good teachers must be able and encouraged to teach."

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🗀🗀🗀**LEARNING** is a newsletter that focuses on the connection between research and practice in reading, math, science, geography, history, and other subject areas. It is published semi-annually by the National Research Center on Student Learning, part of the University of Pittsburgh's Learning and Research Development Center. It is available free of charge to teachers, principals, administrators, policy professionals or anyone interested in education reform and research-based teaching methods.

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Pittsburgh, PA 15260

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🗀🗀**Prentice Hall Announces Online Catalog Service**

You may now ftp to ftp.prenhall.com or gopher to gopher.prenhall.com. Login as anonymous, use your e-mail address as your passwd and cd to pub to browse or download our Networking and Data Communications catalog. Read or download the readme.lst or readme.ps file for more information.

Other electronic catalogs will be available later this month. We also accept orders by electronic mail at

<orders@prenhall.com>

The order form is available by ftp'ing to ftp.prenhall.com and cd'ing to pub/ptrph_cat/net.comm.

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🗀🗀 **Pupils Log On and Go Global** by John Burgess. Contained in a Special Report on International Education on page 9 of the International Herald Tribune, October 5, 1993.

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🗀🗀🗀🗀 **Technology Refusal and the Organizational Culture of Schools,** by Steven Hodas. Edpolyar, Volume 1 Number 10 , September 14, 1993, ISSN 1068-2341 **

**The Education Policy Analysis Archives is a peer-reviewed scholarly journal published entirely electronically. It operates as a LISTSERV based at ASUACAD.BITNET under the listname EDPOLYAR. Each issue is a separate article and is released as the article is accepted by the editor. Articles can be accessed in several ways. You can receive EPAA by direct mail by subscribing to the LISTSERV; just send an email letter to LISTSERV@ASUACAD.BITNET (or to LISTSERV@asuvm.inre.asu. edu) and make the sole one-line contents of the letter read

SUB EDPOLYAR <your name>

Each article is logged in a file that is accumulated across the year in which it is published. You can retrieve the entire volume to date by sending an email letter to LISTSERV@ASUACAD.BITNET and including the single line GET EDPOLYAR LOG93 F=MAIL. The volume will be sent to you as an email letter; it is very long (about 15,000 lines). Or you can periodically send the message INDEX EDPOLYAR to the same address and then retrieve new articles via a LISTSERV GET command. In addition, the Education Policy Analysis Archives are archived at several Gopher sites, including INFO.ASU.EDU and the AskERIC Gopher at Syracuse University. One can easily find the Archives by performing a VERONICA search on the key words Education Policy.

The Digitial Calendar

November 1993

6 Nov. **NIC Fest '93** San Diego, California. NIC Fest will offer interactive tutorials and discussions on topics of immediate relevance to NIC personnel. Our goal is to leave you informed and up-to-date on NIC tools, projects, and futures. Instructors include leading NIC staffers from around the Internet, representing InterNIC Information Services, Directory and Database Services, Registration Services, the Clearinghouse for Networked Information Discovery and Retrieval (CNIDR), the IETF User Services Working Group, and Bunyip Information Systems. Send additional questions about NIC Fest to <nicfest@is.internic.net>; tel 800-444-4345 (USA); fax +1-619-455-4640.

10-13 Nov. **TEL'ED 93 2nd International Symposium on Telecommunications in Education: Global Connections;** INFOMART, Dallas TX; Paul Resta, Conference Co-Chair, Tel-Ed '93, International Society for Technology in Education, 1787 Agate St., Eugene, OR 97403-1923; tel +1- 512-471-4014; fax +1-512-471-4607; <presta@utxvm.cc.utexas.edu>.

29-1 Dec. **TELECOTTAGE'93** Pan Pacific Hotel, Gold Coast, Queensland, Australia. Telecottage '93 will be the first Telecottage symposium to be held in Australia and will be a landmark event. For more information contact: Conference Administrator: Winkler Marketing Services Pty Ltd, P.O. Box 889, Kenmore, Queensland, 4069, Australia. tel + 61-7-878-3358; fax + 61-7-878-2689

December 1993

7-10 Dec. **CAUSE 93, "Managing Information Technology as a Catalyst of Change"** San Diego, California. Contact: 4840 Pearl E. Circle, #302E; Boulder, CO 80301; tel +1-303-449-4430; fax +1-303-440-0461; <info@CAUSE.colorado.edu>.

15-17 Dec. **1993 International Conference on Computers in Education (ICCE '93), "Applications of Intelligent Computer Technologies";** Taiwan; Dr. Tak-Wai Chan, Institute of Computer Science and Electronic Engineering, National Central University, Chungli, Taiwan, 32054, R.O.C.; fax +88-6-3-4255830; <chan@ncuee.ncu.edu.tw> or <chan@ncuee.ncu.edu.tw@twnmoe10.bitnet>.

18-21 Dec. **International Conference on Computer Based Learning in Science (CBLIS);** Vienna, Austria; P. Nobar, International Conference on Computer Based Learning in Science, Computer Assisted Teaching Unit, Mechanical Engineering Department, Queen Mary and Westfield College, University of London, Mile End Road, London E1 4NS, UK; tel +44-71-975 - 5555 (ext. 3048); fax +44-71-975-5500; or W. Kainz, Universit tslektor am Institut fer Theoretische Physik der Technischen Universitat Wien A-1040 Wien, Wiedner Hauptstr 8-10; Austria; tel +43-58-801-5466-5467.

March 1994

6-8 Mar. **1994 SYMPOSIUM ON APPLIED COMPUTING (SAC '94) SPECIAL TRACK ON COMPUTER APPLICATIONS IN EDUCATION** Phoenix Civic Plaza, Phoenix, Arizona. For general inquiries please contact the conference director, Ed Deaton, at: Dept. of Mathematical Sciences, San Diego State University, San Diego, CA 92182 <deaton@cs.sdsu.edu> tel: +1-619-594-5962; fax: +1-619-594-6746

16-19 STATE 94 SOCIETY FOR TECHNOLOGY AND TEACHER EDUCATION – Fifth Annual Meeting; Washington, D.C. This year's theme is "Methods and Models for the 90s. " For information contact: STATE 94, AACE, P.O. Box 2966 Charlottesville, VA 22902 USA <AACE@virginia.edu>; tel +1-804-973-3987; Ffax: +1-804-978-7449

April 1994

4-8 Apr. **AERA (ENETSIG)** Meeting in New Orleans.Conference Theme: Aternative Learning Environments: Work, School, Play. For AERA E-NET SIG: Contact Daniel Blaine, University of Hawaii at Manoa **<daniel@uhunix.uhcc.Hawaii.Edu> <daniel@uhunix.bitnet >**

May 1994

11-14 May. **CADE'94 CONFERENCE : Distance! Quelle Distance?** The 1994 conference of the Canadian Association for Distance Education will be held in Vancouver, B.C., Canada. Inquiries about the conference can be directed to CADE '94, Centre for Distance Education, Simon Fraser University, Burnaby V5A 1S6 BC., Canada; tel +1-604-291-3524; fax +1-604-291-4964; <Heather_Persons@sfu.ca>

NetTEACH NEWS is a newsletter for K-12 networking teachers. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

NetTEACH NEWS is published ten times a year.

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NetTEACH NEWS

Volume 1, No. 6 | The Newsletter for K-12 Networking Educators | November 1993

What the Blues Have to do with Paying Dues—Bringing Teachers Online

by Ferdi Serim <ferdi@tigger.jvnc.net>

How many of you are Jazz musicians? —I thought so. Well, how many of you know how to improvise? Hmmm...only a few more. Let's see if I can put this in perspective.

As I travel around my school, at neighboring districts, and recently away from home at conferences and workshops, there is a sense of deja vu. Although heads nod vertically about all the good words we say concerning telecomm and the internet, under the surface, there is sometimes a good deal of hesitation, if not outright resistance to coming on-line. It struck me recently that I've been through this before, in my former "incarnation" as a Jazz Artist-in-Residence, and that some of these dues may be relevant to those we're paying now.

Over a period of 5 years, I visited 35 communities, and over 25,000 people actually played solos on the instruments I brought with me. I guess it didn't result in a mass conversion to bebop, since so few of you spoke up in the first question!

Where I hope it did succeed is in showing everyone how Jazz is a language, born in the Call and Response traditions of Africa, now given to the world by heroic African American as a great gift to the world. Johnny Griffin said "Blues is feeling good *in spite of*..." and this attitude propels the improvisations into a realm which is best discussed where music can be heard among friends. What I hope to lift from this art form is the fact that we all improvise each minute (those of us who don't arise each morning with a complete script prepared for each of our interactions, that is!).

We respond to what is said to us, in what we seek to know, and what we need others to know. The richness of our communication parallels the richness of our experience and influences the extent of our options. Improvisation, like learning, is a two way affair, with each harsh exchange setting the stage for the next. I bet more of us would confess to improvising if I asked the question again.

If we are to move from consumers (audience) to producers (soloists), it helps to have something to say in your solo. Studying, even mastering, chords, scales, technique do not assure a valid, satisfying expression for player, partners or listeners. That demands sincerity, two way listening, sensitivity and commitment. Just like real life. The content is up to what's in your life.

Finding Your Voice

After a short time on the net, you begin to realize the paradoxical nature of this democratic medium. Each person is a single voice, with equal claim to bandwidth, regardless of experience, status, position, age, sex, and a host of

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A Glimpse Inside:

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Some 725 educators, researchers, and school administrators came to Dallas, Texas to check out and make "Global Connections".

Hot News..4
Nasa releases a new video on K12 on the Internet, the National Science Foundation reveals a new program, and the NASSP links with GLC's WorldClassroom.

The Global Network Navigator.........5
O'Reilly & Associates–one of the premier publishers in the Internet field set up GNN to help the Internet community find out useful information.

The CoSN Gopher 6
It's up and running and worth a visit. Thanks to Ferdi Serim for putting it all together for CoSN.

Instruction Corner—Mosaic..............8
Anthony Rutkowski in a three part series describes the "killer applications"—Mosaic and Eudora. This month, he begins with a discussion of Mosaic.

A Holiday Book List........................... 10
It's that time of the year folks. Here are some of my old favorites and new favorites that you might like to add to your holiday wish list.

The Digital Calendar......................... 11
This year is winding down. It's time to start planning for the 1994 World Conference Tour. TCEA'94 will be held 8-11 February in Austin, and State 94 is slated for 16-19 March in Washington, D.C.

(continued from page 1)

Bringing Teachers On-Line

other descriptors which serve to filter the hierarchical contexts characterizing much of our routine "off-line" exchanges. Yet, some of these voices belong to the latter day masters of the medium. Pioneers and experts arrive in your mailbox mixed in with clueless newbies" and yet pearls of insight are exchanged due to the content of ideas, rather than simply their source. In this aspect, there is a meritocracy based on contributions, perhaps, but the possibilities of person to person, or person to many persons, makes this a means of sharing what we know, care about or wonder about that has no precedent in human history.

When a person starts down the road of understanding more about Jazz, it changes from a "music" to a family of voices. Names evoke sounds that happen in your head when they are spoken. For a musician, saying "Duke" or "Trane" or "Bird" or "Miles" or "Birks" calls up their music, life history, societal influence and more into a rich tapestry of association. Even more amazing is that players can hear only a few tones of any of "family" member and instantly identify who's playing, the same way you can hear the voice of one of your family members on the phone and not have to ask "who is it?"

Achieving such mastery require practice, dedication and talent that take years to mature. We can easily miss the point if we take the fork of this analogy that sees the computer as the instrument, and arrive at Julliard as the model for where we want teachers or citizen learners to end up, with Carnegie Hall as the goal.

Instead, consider the fork which sees life as the instrument, one to be played with the passion artists bring to creation, with whatever discipline is being pursued as simply the melody - this model sees the computer or even the internet as simply the mechanical means of transmission, like the air on which sound travels. It is the potential for having one's "voice"heard by so many people, no longer constrained by place or time, gathering around interests, that makes it possible for the entire range of personal knowledge and vision to find a place and medium for exchange.

All the things You Are...

In other musics, the composer is celebrated (although usually not in their lifetimes!), and the musician in the orchestra is relegated the role of a necessary technician. Most people belong in the audience, due to the talent, practice and dedication required to succeed at music as a livelihood. In jazz, it is the individual people who matter. Oh, to be sure, their compositions and stylistic discoveries outlive them, but their voice is silenced at their passing, never to be duplicated again.

The internet offers everyone the opportunity to find their "voice", and a way to be heard! As I discovered this week, finally meeting many of the visionaries who are responsible for the current progress we all enjoy, I didn't just "feel like" I knew these folks: at a deep level, I did. I only lacked the picture, the gesture, the subtle non-verbal clues we walk around with, but at the deepest level I realized this: On the internet, the Who in You shines through. Your words, how you choose to respond, the hopes, dreams and outlets you seek define a larger part of your personality for your audience than you might imagine.

The Dues of our Blues

Remember, this is only an analogy. You don't need to become a virtual virtuoso, you just need to explore and share all of who you are. One of the objections to arts residencies was: we don't need more artists - we can't feed the ones we have today! The bandied figure for creative people is 3% of the population. I get angry around *that* one. Who's been given the chance? Who's been encouraged and supported, who's experienced the idea that their life provides a daily dose of experience others can benefit from?

I think the number is far higher, just based on the people who soloed on my instruments. The biggest step is from "I can't" to "I haven't yet, but I'll try". Turning the corner on that idea may spark confidence that results in someone who brings poetry to their normal" job, who seeks new ways of doing things because they've encountered their own creativity, and realize it can be channeled in practically any direction.

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Unsolicited submissions are welcome and should be sent to the Editor.

TEL-ED'93 —- Global Connections

by Kathy Rutkowski kmr@chaos.com

They came from around the world–some 725 people–to the Infomart in Dallas, Texas from November 10-13, 1993 to participate in Tel-Ed'93. The theme of the conference was Global Connections and for many this occasion marked an opportunity to meet virtual friends and collaborators for the first time face-to-face and to make new potential virtual friends and collaborators. The Internet was the "buzz word" and for some this was the first time to see Mosaic in action in the CoSN booth, or learn about Cu-See-Me and the FrEdMail Global Classroom Project.

Brewster Kahle in the keynote opening speech talked about the new world of network publishing where every man, woman, and child is a publisher and knowledge producer/consumer. He shared his "View of Technology" and compared the three major revolutionary communication technologies, e.g. the printing press, the telegraph/telephone, and global digital networks. He outlined the various technical problems that had to be solved before the technology could become transparent and universally acceptable, e.g. experts only, distribution hard and expensive, different interfaces, intractable material, and business model needed. The challenges for the new world of electronic networks are now being faced and new navigation techniques such as gopher and wais and veronica are helping individuals to find information, sort through it, and use it constructively. In the new world, we will all be publishers and are quest for information will be facilitated by intelligent machinery that knows us better than perhaps we know ourselves.

What was obvious quickly too all the attendees of Tel-Ed'93 was that we needed those intelligent machines at the conference because there was a phenomenal amount of much needed, much wanted and greatly interesting material being given out ast the various parallel sessions and panels as well as in the lobby as small groups of people fromn around the world sat down to talk informally about what they were doing. The most difficult task was to choose where to go because that meant excluding all the other equally desirable possibilities.

Many of the Who's Who in K12 Networking were presenters. Otto Benavides, Alda Benavides and Libby Black talked about Training Teachers to Use the Internet, Gwen Solomon talked about Telecommunications and Curriculum, Dennis Newman about the National School Network Testbed, Margaret Honey about the The Mathematics Learnings Forums Project, Yvonne Andres about the Global Schoolhouse Project, Margaret Riel on Telecommunications, Educational Reform and What Work is Required of Schools, Seth Itzkan on Picturing the Global Classroom, Marvin Bratt on the World of AGE, Bob Tinker of TERC Labs on ALICE, Bill Wright on BreadNet, Al Rogers on SCHLnet, Peter Copen and Ed Gragert on I*EARN, and the impressive list goes on. The Conference Proceedings for Tel-Ed'93 Global Connections is bound to be a popular publication for ISTE.

The Commercial Vendors were there also showing their new products and services to support distance education and networking. Many other commercial vendors came to lurk, check out K12 networking, and consider new ways of partnering.

> **"There's no reason why every classroom in the country cannot have dedicated access to the Internet in a year's time."**
>
> —Senator Bob Kerry, Nebraska
> at Tel Ed'93 in Dallas on November 12, 1993

Washington came to. Linda Roberts the Special Assistant on Technology to Richard Riley, the US Secretary of State delivered the keynote speech at the Thursday night Banquet. Senator Bob Kerry of Nebraska delivered the closing speech on Friday , November 12.

Senator Kerry suggested the possibility that " every classroom in the country can have dedicated access to the Internet in a year's time" and called for a a new regulatory requirement to provide such access. He indicated that the real challenge was not connectivity, however, but using this technology in a fashion that brings higher human values. The content of information delivered must do more than entertain and should help us all to be better citizens and the American to be a better democracy as a result.

Jan Wibe of the University of Trondheim in Norway spoke prior to Senator Kerry on Friday afternoon. Mr. Wibe recalled a journey hundreds of years ago when Leif Ericson of Norway sailed across the Atlantic to the New World and his own journey on a jet to New York and a phone call to his wife back in Norway. He went on to describe how networks have allowed him to continue this urge to communicate and reach out to others around the globe and explore new lands and ideas. He talked about a virtual friend from Australia–a woman in her late seventies who is a recent convert to the internet and someone who illustrates that it is "never too late to learn".

The predominant message was we are living in a new world where new communities of learning are being formed as a result of advanced global computer networks. Those who came to Dallas are the explorers of that new world and are leading the way for future generations to communicate effortlessly on a global basis. Those future generations will look back to this time and place as a critical watershed and will no doubt smile to think that here and now the vast majority of people considered these technologies "scary". Another generation of risk-takers, however, will look back to the current pioneers not with amusement but with respect. They will be facing their own challenges and own frustrations and bright hopes as we do today who hold the vision of tomorrow in a mainstream society that clings tightly to the comforts of what is transparent today.

The participants of Tel-Ed will return to their, classrooms, universities and hopefully the halls of government bringing a needed message and calling for a change in attitudes, a change in culture, and a change in the way business is done as usual. It was an exciting time in the Infomart in Dallas but the reality is the time is rapidly approaching when all people with an interest and desire to reach out for information and contact other potential collaborators will be able to come together in virtual meetings and sessions throughout the world. And that is exciting.

The Proceedings of Tel Ed'93, Edited by David Foster and Deborah V. Jolly. Published by SEDL 211 E. Seventh Street, Austin, TX 7870. For information about purchase contact, ISTE (International Society for Technology In Education) 1787 Agate Stree, Eugene, OR 97403-1923/ tel +1 503 346-4414

Hot News

The Global Quest—A NASA VIDEO on K12 Networking

NASA has produced "Global Quest: The Internet in the Classroom"—an 11-minute video describing the benefits to schools in using the Internet. The video contains
interesting interviews with students and teachers who have personally experienced the power of networking.

The Video is available from:

1)Your nearest NASA Teacher Resource Center or Regional Teacher Resource Center. To find your nearest TRC telent to Spacelink. * You can freely duplicate it.

2) NASA's Central Operation of Resources for Educators (CORE) will mail a copy for $18.50, which is cost plus shipping and handling. More information is available by calling them at (216) 774-1051, x293 or writing NASA CORE / Lorain County Joint Vocational School / 15181 Route 58 South / Oberlin, OH 44074. You may also fax them at 216-774-2144.

The Video will be broadcast regularly and frequently on NASA Select TV. You can find out what the NASA Select TV broadcast schedule is by accessing NASA's Spacelink.**. (NOTE: The video should be scheduled shortly so keep checking.)

This video may be freely copied and distributed for educational uses.

[* To find, the nearest Teacher Resource Center. Telnet to Spacelink at IP Address # 192.149.89.61. Follow entry procedures. From the main menu, choose,

ASA Spacelink Main Menu
1. Log Off NASA Spacelink
2. NASA Spacelink Overview
3. Current NASA News
4. Aeronautics
5. Space Exploration: Before the Shuttle
6. Space Exploration: The Shuttle and Beyond
7. NASA and its Centers
→ 8. NASA Educational Services
9. Instructional Materials
10. Space Program Spinoffs/Technology Transfer
11. LIVE FROM...OTHER WORLDS (Interactive Program for Teachers and Students)

Then from NASA Education Services Menu choose,
0. Previous Menu
1. Return to Main Menu
2..Aerospace Education Services Project
→ 3..Teacher Resource Center Network
4..NASA Spacelink
5..NEWMAST/NEWEST Teacher Workshops
6..Other Teacher Workshops
7..Space Science Student

** To find the NASA Select TV schedule from the SPACELINK Main Menu select,

NASA Spacelink Main Menu
1. Log Off NASA Spacelink
2. NASA Spacelink Overview
3. Current NASA News
4. Aeronautics
5. Space Exploration: Before the Shuttle
6. Space Exploration: The Shuttle and Beyond
→ 7. NASA and its Centers
8. NASA Educational Services
9. Instructional Materials
10. Space Program Spinoffs/Technology Transfer
11. LIVE FROM...OTHER WORLDS (Interactive Program for Teachers and Students)

From the NASA and its CENTER menu select,
0. Previous Menu 1. Return to Main Menu
2..The NASA Centers
3..The Aeronautics and Space Act of 1958
4..Orders of Magnitude: A History of NACA and NASA, 1915-1990
5..NASA Objectives
6..Biography of NASA Administrator Daniel Goldin
7..NASA Budget Request FY 1994
8..Principal Recommendations Section of Augustine Commission Report
9..NASA Art Program
10.Space Program Q & A
11.NASA and UFO's
12.NASA Vision Team Memorandum to NASA Employees (6/5/92)
13.Offering Ideas to NASA
14.The Years in Review (Year-ender Reports)
15.1992 NASA Town Meetings
→ 16.NASA Select Television and Audio Services

NEW NSF Program on Networking Infrastructures for Education

During the October 14-15 meeting, the National Science Board of the NSF approved the following Memo. Please note that a solicitation with final award dates and review criteria will be forthcoming.

The Directorates for Education and Human Resources (EHR) and for Computer and Information Sciences and Engineering (CISE) recommend the initiation of a joint Networking Infrastructure for Education (NIE) Program. The program responds to the national need to accelerate the adoption of advanced technologies in support of science and mathematics education to: better prepare all citizens for participation in our society; attract groups currently underrepresented in science and technology fields and careers; and better prepare future scientists, engineers and technologists. NIE is part of the National Research and Education Network (NREN) component of the national initiative on High Performance Computing and Communications (HPCC).

Two evolving national activities in which the Foundation plays a critical leadership role are science and mathematics education reform, and networking development and infrastructure. The NIE program will build synergy between both activities to explore and extend the needs of the educational component of national research network activities. The Program strategy is to bring together the constituencies of CISE and EHR to hasten the development of a widespread high performance infrastructure that will be instrumental in the wide scale dissemination, integration and application of technologies to speed the pace of educational innovation and reform. NIE thus builds upon the unique strengths of CISE and EHR.

Specifically, the NIE Program will:

♦ establish testbeds, implementation models and prototypes that explore the role of electronic networks in support of reformed education;

(continued on next page)

(continued from page 4)

NSF's NIE Program

- support the R&D needed for large-scale, cost-effective implementation of educational networking, including infrastructure, organization, tools, materials, and mechanisms for technology transfer;
- strengthen collaborations between groups that are developing services and technical assistance for network users, and large education stakeholders, such as states and school districts; and,
- supplement existing CISE and EHR infrastructure and/or systemic educational reform awards that are consistent with NIE's cross-directorate goals.

NIEP plans to fund 3-5 awards yearly for each of the following categories:

- Policy studies $25,000 to $100,000 per year
- Research and development
- $250,000 to $750,000 per year , 1 to 3 yrs
- Demonstration and model sites

$250,000 to $750,000 per year, 1 to 3 yrs
- Infrastructure and testbeds

$500,000 to $1,500,000 per year. 1 to 3 years

NIE will promote the development of new alliances and partnerships including two- and four-year degree-granting academic institutions, school districts, professional societies, state agencies, and others concerned with educational reform. Business and industry participation, with cost-sharing consistent with their role, will be required for demonstration and model sites, and for infrastructure and testbeds, and strongly encouraged for policy studies and R&D projects.

During the program's first year only, NIE plans to award up to $4,000,000 in supplements and awards to existing CISE and EHR infrastructure and/or systemic educational reform projects. Supplements will range from $100,000 to $750,000 each.

Review process

- Program announcement, guidelines, and a 'Dear Colleague' letter will be issued upon establishment of the Program.
- NIE will require preliminary proposals, which will be due February 15.
- Consortia planning grants will be accepted, with the same due date.
- Preliminary proposals and planning grants will be reviewed internally by the Program's working group, with ad-hoc mail reviews as appropriate.
- Target date for formal proposals will be April 15. Review of formal proposals will be by a standing panel of experts. Site visits and ad-hoc mail reviews will be used as appropriate.
- Target date for proposals requesting NIE supplements to existing grants is Dec. 15, 1993.

For further information, please contact either, Nora Sabelli (nsabelli@nsf.gov) or Art St.George (astgeorg@nsf.gov);
Phone: (703) 306-1651; Fax: (703) 306-0434.

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The NASSP Joins with GLC's World-Classroom

The National Association of Secondary School Principals (NASSP) has joined with the Global Learning Corporation's WorldClassroom to provide more students the opportunity to experience international learning. WorldClassroom, a telecommunications network which has involved kindergarten through 12th graders and teachers in global education activities since 1989, allows students to connect nationally and worldwide to ask and respond to questions and projects.

"WorldClassroom is a unique and dynamic program composed of constantly evolving projects and curriculum modules to help students gain a global perspective," said Marisa Sherard, NASSP director of partnerships international. "As world and current events change, lessons are modified to address current issues of social, economic, and political importance. Students can utilize this data to make decisions about themselves and their environments.

Schools subscribing to WorldClassroom access a variety of educational projects, information databases, guest speakers from around the world, and become a resource to other schools through any personal computer, modem, phone line and telecommunications software. Organizations that already use the internet can access WorldClassroom at reduced rates. Network lesson plans are supported by data-based resources, personal assistance, and peer support.

For more information about WorldClassroom, contact NASSP Partnerships International at (800) 253-7746 or Global Learning Corporation at (800) 866-4452. you can get additional information online by sending an email request to nassp@glc.dallas.tx.us. Include your snail address and phone number in the email message if you desire printed materials.

Global Network Navigator

The Global Network Navigator (GNN), a free Internet-based information center, is up and running. GNN consists of a regular weekly news service, an online magazine, The Online Whole Internet Catalog, and a global marketplace containing information about products and services.

Global Network Navigator is an application of the World Wide Web (WWW), developed at CERN in Switzerland. Most of the current development on World Wide Web technology is centered at the National Center for Supercomputing Applications (NCSA) in Champaign, Illinois. NCSA's Mosaic is a World Wide Web browser available for UNIX systems with beta versions for PC Windows and the Macintosh also available. Any World Wide Web browsers can be used to access GNN as well as other network services such as gopher and WAIS.

How To Subscribe

To get information about subscribing to Global Network Navigator, send e-mail to

<info@gnn.com>

This is a free service offered by:

O'Reilly & Associates
103A Morris Street, Sebastopol
CA 95472 USA
tel. +1 707-829-0515.

What's New in Gopherland? The CoSN GOPHER

CoSN–The Consortium for School Networking– now has a gopher up and running. It is still in its beginning stages but already contains much useful information and pointers to other excellent educatonal resources.

I. How to get to the COSN gopher

a) **by GOPHER**—If you have a full internet connection, at your command prompt, write

<gopher digital.cosn.org> or
<gopher cosn.org>

b) **by TELNET** to a gopher client issue the following command:

<telnet consultant.micro.umn.edu>
(134.84.132.4)
login: gopher
and navigate your way to the COSN gopher hole. Select

"8) Other Gopher and Information Servers"
"8) North America"
"3) USA"
"2) General"
"17) Consortium for School Networking (CoSN)

II. The CoSN Gopher Main Menu

Consortium for School Networking (CoSN)
-> 1. CoSN Gopher is Currently Under Construction/
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(continued from page 2)

Bringing Teachers OnLine

What amazed me in my residencies was how I was welcomed by almost everyone, except the music teachers! It's a good thing that I believe in interdisciplinary education, and found ways to connect jazz to every class in the curriculum, from cooking soul food to physics, from history to calculus to chinese philosophy. Most of the music teachers didn't want to come near Jazz, or let me into "their" program. In a way, it didn't matter, because the kids still learned to blow convincing, original solos, improvising and tapping into their creative core, but it was disconcerting.

Sound like how some teachers feel about letting the internet into "their" classrooms? I think we need to rethink how we approach the subject, in at least two ways, because as long as this stays a computer issue, it stays a "foreign" subject.

First of all, it is about people. On each end of any network wire, there is a person, and that's the only reason for having any of the hardware and software in between. Let's focus on the people, and how these resources can lead to exciting learning in our classrooms. The fact that networks make this possible should be as transparent as possible.

From the mountains to the valleys...

Coming to Tel-Ed'93 has been a profound experience. In my home town, like it or not I'm increasingly being seen as the person with all the answers, and while I do find giving service to be gratifying, the pressure to provide every answer is relentless. Within hours of arriving here, I met and experienced the skill level of many people who are so far beyond my present level of knowledge, that I found it to be amazing, and actually a complete relief! As a drummer, my mentors have names like Max, Tony, Jack, Elvin and Diz ; on the net they sound like Odd, Connie, Bob, Prescott, Frank, Yvonne, Lara and Larry! When this relief had resulted in sufficient relaxation, an important realization followed.

The beauty of the internet is this: no matter how specialized an area of interest, there is someone who can point the way, who has developed their skills and knowledge to serve as a guiding light, who knows and will share what I need to know. At the same moment, there are elements of my experience which enable me to serve this same role for someone else. The internet creates the possibility for the first time in human history for connections to be made in both directions, from any point of the compass to any other.

By focusing on the computer, interfaces, types of connection et al, we obscure the fact that each of us is an "expert" in *something*, and that at one time or another, what we have to share will be vital to someone. People coming to the internet who feel intimidated, insecure, "without a clue" are only so with respect to the mechanics of the technology. Once they learn how to come on-line and share what they have to contribute,and find their "voice", they are also "instant experts".

We need these people, every one of them. The problems we confront today won't wait for the learned to deliver a packaged prescription for our world. If the challenges we must solve were as simple or stupid as they seem in their brief turn in the media spotlight, they'd be easy to solve. Instead, it will take a sustained effort by the unfettered creativity of as many people on this planet as we can muster to save the day.

So, our colleagues must be invited into a caring community which values what they have to say about learning, which is committed to providing support to their initial "growing pains" and which is determined to discover new ways for us to collaborate, to jump levels beyond the constraints of time, space and energy to which our isolation has accustomed us.

How does Jazz (Blues) relate to these dues? The obstacles are enormous, our history has its own forms of professional oppression, and so the call to "feel good *in spite of* ..." rings true. We need to dig deep into our collective "trick bag" and find creative ways to improvise within our respective invisible structures to provide coherent, convincing expressions of welcoming, with which to bring each teacher and student, parent and child, employer and employee in to a community of learning. We need towoodshed our parts, perfect our skills and trade ideas in all styles, at all tempos, with any available instrumentation.

As Charlie Parker said, "Now's the Time"

(verse)
Them that's got shall get
Them that's not shall lose
So the Bible says
And it still is news.
College may have
and Business may have
But God bless the child
that's got his node,
that's got his node

(verse)
Online services may give you
gateway mail and such
You can help yourself
just don't download too much
College may have
and Business may have
But God bless the child
that's got her node,
that's got her node

(bridge)
IP address, you've got friends
crowding 'round your mailbox door
Lose your access, in a flash
you ain't nobody no more

(verse)
Dialup access may give you
Usenet, mail and such
You can help yourself,
just don't post too much
College may have
and Business may have
But God bless the child
that's got her node,
that's got her node

(tag)
She just don't worry 'bout nothin,
cause her domain's known

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The Instruction Corner:

Internet's "Killer Applications"— Mosaic and WWW

by Tony Rutkowski <amr@isoc.org>
Vice-President, Internet Society Director of Technology Assessment, Sprint

In the information industry over the past few years, strategists and consultants have used the term "killer application" to describe the situation where business sectors begin to massively scale in size when a single magic information service is found that is so compelling or captivating that consumers simply cannot do without it. During the past few weeks, the Internet world appears to be witnessing the emergence of two "killer apps" that are so significant that my MIT colleagues refer to them as new paradigms.

Mosaic and the World Wide Web

On 12 November 1993, a digital cannon was fired that was felt around the world. The National Center for Supercomputing Applications is located at the University of Illinois at Urbana-Champaign, and one of the premier high- performance information networking and computing research establishments in the world. On that date, NCSA placed on its Internet public server the software to implement good, stable versions of Mosaic on all commonly used computer platforms - Microsoft Windows, MacIntosh, or Unix workstations.

Mosaic in technical terms is known as a "distributed information browsing client." It is, in fact, the most elegant, powerful, intuitive, ethestically beautiful knowledge tool ever created. All in one screen, it provides dozens of lovely fonts and formatted text against a light grey background, with bright underlined blue phrases serving as hypertext links to greater subject detail or additional screens. It is fully multimedia with embedded graphics, pictures, audio, and even motion picture clips. It is optimized to present information for a special Internet-based service known as the World Wide Web (WWW), but it also seamlessly and simply links to most other common Internet-based information services -gopher, WAIS, FTP, Telnet, NetNews, directory services distributed across the world on more than 2 million connected computers. Mosaic can even be used with files on one's own computer on disks or CD-ROM.

Even in it's earlier beta forms for Unix workstations, Mosaic was causing the use of the Internet to scale at enormous rates for WWW. Annual traffic growth for the WWW service alone this year exceeds 300,000 percent! Nothing in the history of human electronic communication has scaled so massively - not only in terms of traffic, but also in geographical ubiquity. This is a revolution that is unfolding around the world as servers have spread to 26 countries and encompass virtually every institutional and professional field. What happens now is anyone's guess - but we know the answer is going to be measured in exponential orders of magnitude. Every company and institution, government and commercial - including the publishing and telecommunication industries - are certain to be significantly affected as the demand for these services grows.

Assisting the user are a variety of services themselves Mosaic-WWW based. These include server directory services by location, by subject, by word search tool. There are discussion groups, a news letter, and a daily What's New bulletin that you can establish as your first screen. From there, you just point and click on words or phrases to navigate.

When I first pulled the Mosaic software for Windows onto my PC to use it, my 7 year old son was at my side. He asked if he could "navigate." I watched as he visited places around the world - including a particularly fascinating collection of art works at the first Fractal Art Museum operated by the University of Rennes outside Paris. After viewing one particularly lovely Mandelbrot picture [see next page], he simply clicked on it to bring it over to our PC to display full size on the screen and be stored here.

It's worth giving significant credit for this development also to Tim Berners-Lee at CERN - the world's largest high-energy physics research facility straddling the Swiss-French border outside Geneva. Tim conceived the World Wide Web in early 1989 and first implemented it in late 1991 on NeXT workstations. As it began to be used on other computer platforms, it's use began to scale. Most of the really dramatic growth only began this year especially in the past few months.

Mosaic - like many of the significant new network based services - makes use of an important new information architecture known as "client-server" technology. Although it may sound complicated - the basics are simple - making use of the substantial intelligence and power that PCs and workstations now possess. A client is just an information process - often including a display - that runs on a computer that is intended to interact automatically with a related service- oriented information process on some other computer known as a server. These are generally "open" architectures in the sense that multiple clients can usually work with a server anywhere across a network that may vary in scale from a Local Area Network to a global Meta-Network like the Internet.

Where can you obtain Mosaic? Simply FTP to <ftp.ncsa.uiuc.edu> and browse through their directories that are oriented around Unix work stations, MS Windows, and Macs. Go to the platform of you choice and get the Mosaic program as well as the related display or audio drivers. These are typically compressed.

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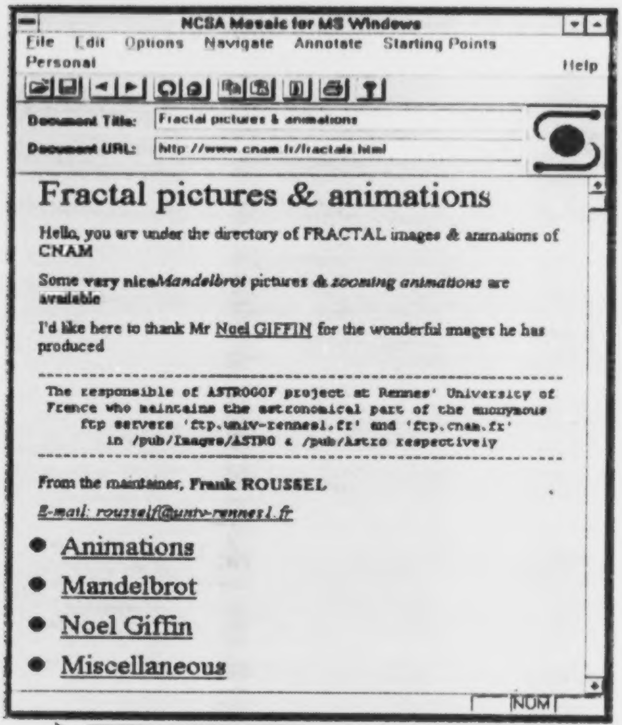
In the December issue, Mr. Rutkowski will describe Mosaic and Networked Images (GIF, JPEG, MPEG) .


NCSA Mosaic for MS Windows
File
Edit
Options
Navigate
Annotate
Starting Points
Personal
Help
NUM

Document Title: Fractal pictures & animations

Document URL: http //www cnam fr/fractals html

Fractal pictures & animations

Hello, you are under the directory of FRACTAL images & animations of CNAM

Some very nice*Mandelbrot* pictures & *zooming animations* are available

I'd like here to thank Mr Noel GIFFIN for the wonderful images he has produced

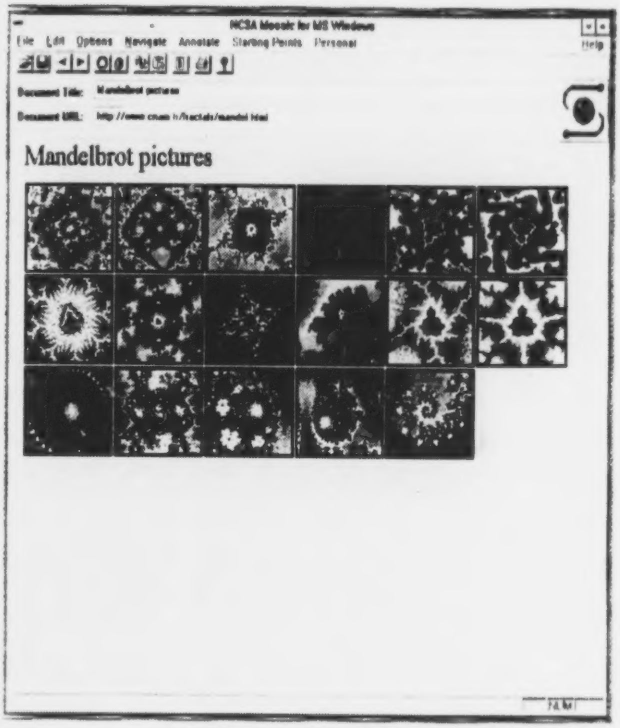
---

```
The responsible of ASTROGOF project at Rennes' University of
France who maintains the astronomical part of the anonymous
ftp servers 'ftp.univ-rennes1.fr' and 'ftp.cnam.fr'
in /pub/Images/ASTRO & /pub/Astro respectively
```

From the maintainer, **Frank ROUSSEL**

E-mail: rousself@univ-rennes1.fr

- Animations
- Mandelbrot
- Noel Giffin
- Miscellaneous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Document Title: Mandelbrot pictures

Document URL: http //www cnam fr/fractals/mandel html

Mandelbrot pictures

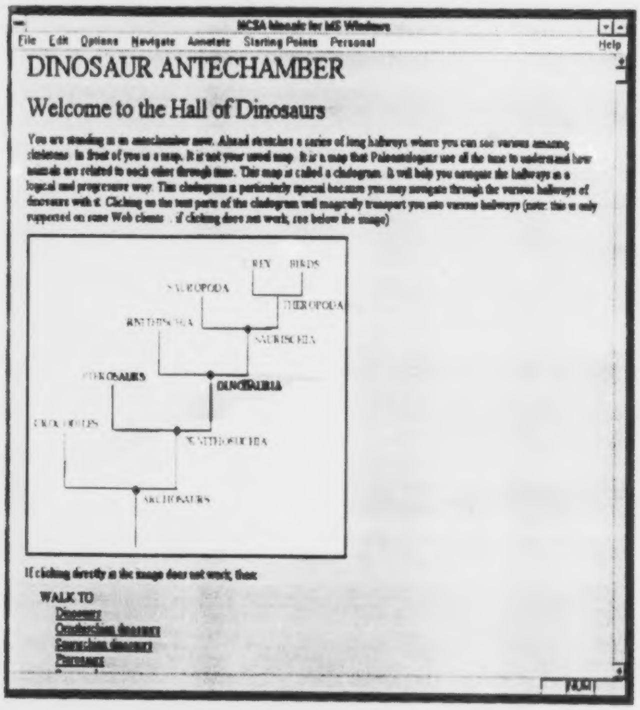
Fractal Library

Mandelbrot

MOSAIC

Hall of Dinosaurs

Vatican Exhibit


NCSA Mosaic for MS Windows
File
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REX
BIRDS
SAUROPODA
THEROPODA
ORNITHISCHIA
SAURISCHIA
PTEROSAURS
DINOSAURIA
CROCODILES
ORNITHOSUCHIA
ARCHOSAURS
NUM

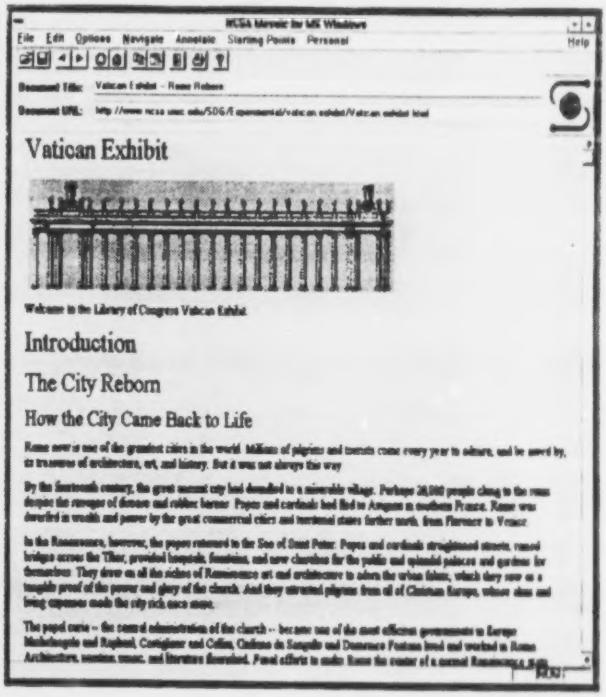
DINOSAUR ANTECHAMBER

Welcome to the Hall of Dinosaurs

You are standing in an antechamber now. Ahead stretches a series of long hallways where you can see various amazing skeletons. In front of you is a map. It is not your usual map. It is a map that Paleontologists use all the time to understand how animals are related to each other through time. This map is called a cladogram. It will help you navigate the hallways in a logical and progressive way. This cladogram is particularly special because you may navigate through the various hallways of dinosaurs with it. Clicking on the text parts of the cladogram will magically transport you into various hallways (note: this is only supported on some Web clients . if clicking does not work, see below the image)

If clicking directly at the image does not work, then:

WALK TO
- Dinosaurs
- Ornithischian dinosaurs
- Saurischian dinosaurs
- Pterosaurs


NCSA Mosaic for MS Windows
File
Edit
Options
Navigate
Annotate
Starting Points
Personal
Help
NUM

Document Title: Vatican Exhibit - Rome Reborn

Document URL: http //www ncsa uiuc edu/SDG/Experimental/vatican exhibit/Vatican exhibit html

Vatican Exhibit

Welcome to the Library of Congress Vatican Exhibit

Introduction

The City Reborn

How the City Came Back to Life

Rome now is one of the grandest cities in the world. Millions of pilgrims and tourists come every year to admire, and be awed by, its treasures of architecture, art, and history. But it was not always this way

By the fourteenth century, the great ancient city had dwindled to a miserable village. Perhaps 20,000 people clung to the ruins despite the ravages of disease and robber barons. Popes and cardinals had fled to Avignon in southern France. Rome was dwarfed in wealth and power by the great commercial cities and territorial states farther north, from Florence to Venice

In the Renaissance, however, the popes returned to the See of Saint Peter. Popes and cardinals straightened streets, raised bridges across the Tiber, provided hospitals, fountains, and new churches for the public and splendid palaces and gardens for themselves. They drew on all the riches of Renaissance art and architecture to adorn the urban fabric, which they saw as a tangible proof of the power and glory of the church. And they attracted pilgrims from all of Christian Europe, whose alms and living expenses made the city rich once more.

The papal curia -- the central administration of the church -- became one of the most efficient governments in Europe. Michelangelo and Raphael, Castiglione and Cellini, Giuliano da Sangallo and Domenico Fontana lived and worked in Rome. Architecture, painting, music, and literature flourished. Papal efforts to make Rome the center of a

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach chaos com> tel +1 703-471-0593 ISSN 1070-2954

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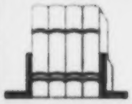

The NetTEACH Electronic Book Store: All-Time Favorites

by Kathy Rutkowski <kmr@chaos.com>

As the holiday season approaches, you might be asked to provide friends and relatives with a list of books you're interested in. The books that follow are my all-time favorites on the subject of networking and the Internet.

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$$$$ 📖📖📖📖 **The Internet Companion, A Beginner's Guide to Global Networking.** By Tracy LaQuey Parker. An Editorial Inc. Book, Addison-Wesley Publishing Company, Menlo Park, Ca., 1993, 196 pages, ISBN 0-201-62224-6-62224. $10.95 US.

This is the book I recommend to anyone who is intereted in learning more about the Internet, or for those persons who are just beginning to explore networking and internetworking. It is a written in an engaging style that can be understood by the layman as well as appreciated by the geek or would-be geek. This was the book that made it all intelligble to me.

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$$$📖📖📖📖 **The Whole Internet User's Guide & Catalog.** By Ed Krol. O'Reilly & Associates, Inc. Sebastopol, CA., 1992, 376 pages, ISBN 1-56592-025-2.

This is a complete user's guide to the Internet that covers the basics in some detail and gives some good advice on how to find desirable resources. The language is somewhat more jargonized than The Internet Companion but nonetheless can be understood by the novice to intermediate user.

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$$$$📖📖📖📖 **The Mac Internet Tour Guide, Cruising the Internet the Easy Way.** By Michael Fraase. Ventana Press, Chapel Hill, N.C. ,1993, 288 pages, ISBN 1-56604-062-0. $27.95.

This is an excellent book—filled with useful information and written in a lively and engaging manner. For Mac Users it is a MUST, and well for us DOS/Window types we can only hope that Michael Fraase will perhaps consider writing tour guides for us.

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$$$$📖📖📖📖 **The Internet Passport: Northwestnet's Guide to Our World On-Line.** By Jonathan Kochmer and NorthWestNet, Bellevue, WA, 1993, 516 pages, ISBN 0-9635281-0-6. $39.95 (Discount for schools $19.95 and for NorthWest Members $16.95)

This guide was definitely written for the busy educator. It is comprehensive and contains a good K12 section.

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$$$$📖📖📖📖 **The Internet Navigator, The Essential Guide to Network Exploration for the Individual Dail-Up User.** By Paul Gilster. John Wiley & Sons, Inc. New York., 1993, 470 pages, ISBN 0-471-59782-1. $24.95.

This is my favorite of the new arrivals. It is especially useful for the "dial-up" user and is written for the newcomer as well as the intermediate user. I especially like Chapter 12 on Resource Discovery: Knowing Where to Look, and Chapter 13 on Tracking Down Information.

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$$$$ 📖📖📖📖 **Exploring the Internet, A Technical Travelogue.** By Carl Malamud. Prentice-Hall, Inc. Englewood Cliffs, NJ, 1992, 379 pages, ISBN 0-13-296898-3.

Carl Malamud took three trips around the world in 6 months to explore the development of the Internet globally. His narrative style is engaging and intelligible to networking novice as well as to the hard-core professional. This is destined to be an Internet classic.

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$$$$ 📖📖📖📖 **The Virtual Community, Homesteading on the Electonic Fronter.** By Howard Rheingold. A William Patrick Book, Addison-Wesley Publishigng Company, Menlo Park, CA.,1993, 325 pages, ISBN 0-201-60870-7. $22.95

Howard Rheingold reminds us that the Internet and advanced global networks are much more than the products of a technological revolution. These advanced technologies are supporting and enabling major changes in our social landscapes. The emerging future society will in large part be determined by the actions taken or not taken by today's global pioneers and we must understand the threat and promise of a networked world.

The Digitial Calendar

December 1993

7-10 Dec. **CAUSE 93, "Managing Information Technology as a Catalyst of Change"** San Diego, California. Contact: 4840 Pearl E. Circle, #302E; Boulder, CO 80301; tel +1-303-449-4430; fax +1-303-440-0461; <info@CAUSE.colorado.edu>.

15-17 Dec. **1993 International Conference on Computers in Education (ICCE '93), "Applications of Intelligent Computer Technologies";** Taiwan; Dr. Tak-Wai Chan, Institute of Computer Science and Electronic Engineering, National Central University, Chungli, Taiwan, 32054, R.O.C.; fax +88-6-3-4255830; <chan@ncuee.ncu.edu.tw> or <chan@ncuee.ncu.edu.tw@twnmoe10.bitnet>.

18-21 December. **International Conference on Computer Based Learning in Science (CBLIS);** Vienna, Austria; P. Nobar, International Conference on Computer Based Learning in Science, Computer Assisted Teaching Unit, Mechanical Engineering Department, Queen Mary and Westfield College, University of London, Mile End Road, London E1 4NS, UK; tel +44-71-975 -5555 (ext. 3048); fax +44-71-975-5500; or W. Kainz, Universit tslektor am Institut fer Theoretische Physik der Technischen Universitat Wien A-1040 Wien, Wiedner Hauptstr 8-10; Austria; tel +43-58-801-5466-5467.

January 1994

9-11 January **The Internet Connection: Issues and Applications in K12 Education.** Thunderbird Convention Center, Bloomington, MN. Keynote speaks: Connie Stout (TENET) and Gleason Sackman (NoDAK SENDIT). For information, contact Sue Soine, TIES Training Center, 2665 Long Lake Rd, Suite 250, Roseville, MN 55113-2535. tel +1-612-638-8780; fax +1-612-638-8798

February 1994

8-11 February **TCEA'94 Kids and Technology**; Austin Convention Center, Austin, Texas. Over 200 hands-on workshops, activity sessions, informative concurrent sessions and general sessions. An Exhibits area of over 175 booths will showcase exhibitors demonstrated a wide array of state-of-the-art technology for education. Pre-registration deadline is January 15. For additional information, call 1-800-282-TCEA (rknight@tenet.edu) and ask for TCEA Conference Info.

16-20 February **AECT Annual Convention and InCite'94** Exposition. Nashiville, Tennessee. Choose from over 300 seminars, special events, workshops, and new technology program tracks. Pre-registration deadline is January 14, 1994. For additional information, call +1-202-347-7834 or send a fax to +1-202-437-7839

March 1994

6-8 Mar. **1994 SYMPOSIUM ON APPLIED COMPUTING (SAC '94) SPECIAL TRACK ON COMPUTER APPLICATIONS IN EDUCATION** Phoenix Civic Plaza, Phoenix, Arizona. For general inquiries please contact the conference director, Ed Deaton, at: Dept. of Mathematical Sciences, San Diego State University, San Diego, CA 92182. <deaton@cs.sdsu.edu> tel: +1-619-594-5962; fax: +1-619-594-6746

16-19 Mar **STATE 94 SOCIETY FOR TECHNOLOGY AND TEACHER EDUCATION – Fifth Annual Meeting;** Washington, D.C. This year's theme is "Methods and Models for the 90s. " For information contact: STATE 94, AACE, P.O. Box 2966 Charlottesville, VA 22902 USA <AACE@virginia.edu>; tel +1-804-973-3987; Ffax: +1-804-978-7449

April 1994

4-8 Apr. **AERA (ENETSIG)** Meeting in New Orleans.Conference Theme: Aternative Learning Environments: Work, School, Play. For AERA E-NET SIG: Contact Daniel Blaine, University of Hawaii at Manoa, USA **<daniel@uhunix.uhcc.Hawaii.Edu> <daniel@uhunix.bitnet >**

14-16 Apr **NCCE 23rd Annual Conference**, Spokane Center, Spokane, Washington. The Northwest Council for Computer Education invites educators and school administrators to come see the latest hardware, software, technical publications, and related equipment in the academic environment. For information, write to NCCE'94, 1277 University of Oregon, Eugene, OR 97403-1277 USA

May 1994

11-14 May. **CADE'94 CONFERENCE : Distance! Quelle Distance?** The 1994 conference of the Canadian Association for Distance Education will be held in Vancouver, B.C., Canada. Inquiries about the conference can be directed to CADE '94, Centre for Distance Education, Simon Fraser University, Burnaby V5A 1S6 BC., Canada; tel +1-604-291-3524; fax+1-604-291-4964; Heather_Persons@sfu.ca

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

NetTEACH NEWS is published ten times a year.

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NetTEACH NEWS

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A Gift of Hope to America's Youth

PRESS CONFERENCE REMARKS

by William Jefferson Clinton

<President@whitehouse.gov>

[I had planned in this column to write a special message of thanks to all the wonderful teachers, librarians, and others concerned with educating the youth of the world. Instead, I've decided to share the remarks of the President of the United States, William J. Clinton, made on December 17, 1993 at A Press Conference Held to Announce the Annenberg Gift of US $500,000,000 to the US Public School Systems. I thank President Clinton for his thougtful and heartfelt remarks, and I thank Walter and Leonare Annenberg for their generosity and commitment to America's youth. Editor,KMR]

THE PRESIDENT: ...

Walter and Leonore Annenberg have done a remarkable and truly wonderful thing on this day in giving the largest private gift in American history to the future of America's children. It could not have come at a better time. In a moment all of you will repair to another place and discuss in greater detail exactly what this gift will do and how it will be done. But since I spent the better part of my life in public service laboring to improve public education, I want the press and the American people to know that there are two things that are important about this gift: its size and the way the money is going to be spent.

It could not come at a better time, 10 years after the issuance of a nation at risk report and on the eve, we all earnestly hope, of the passage of our Goals 2000 Act, which attempts to put into law a mechanism by which the United States can achieve the national education goals adopted by the governors and by the Bush administration jointly in 1989.

In our legislation, we attempt to set high academic standards, to give our country world-class schools, to give our children a way to fulfill their dreams instead of their nightmares. Along with the other things we've tried to do -- reforming the student loan program; opening the doors of college to everyone; trying to develop a national system of moving from school to work for those who don't go to college; pushing a safe schools act so that we don't have 160,000 kids stay home every day because they're afraid to go to school; establishing a system of lifetime learning -- these things make a real difference. But if I have learned one thing in all the years, in all the countless hours that Hillary and I have spent in public schools all across this country, it is that the true magic of education in the end occurs between teachers and students and principals and parents, and those who care about what happens in the classroom and outside the classroom.

And one of the things that has plagued me all these years is seeing all the successes, because, I tell you, I have tried to focus the American peo-

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ple in the last several weeks on the crime and violence that is consuming so many millions of our young people. But what is important for America to know is that there is another reality out there. There are two realities that are at war -- one with the other. There is the reality that we all see: too many guns and too much violence in schools that don't function. There other reality: In the most difficult circumstances you can find anywhere in this country, there are children and parents who obey the law, who love their country, who believe in the future, and who are in schools working with teachers who are succeeding by any standard of international excellence against all the odds.

> **The true magic of education in the end occurs between teachers and students, principals and parents, and those who care about what happens inside the classroom and outside the classroom.**

Therefore, it is clear that the most pressing need in this country today, the most pressing need is to have a standard of excellence by which all of us can judge our collective efforts down to the smallest schoolroom in the smallest community in America; and then to have a system to somehow take what is working against all the odds and make it work everywhere.

All these people who are in this room who have devoted their lives to education are constantly plagued by the fact that nearly every problem has been solved by somebody somewhere, and yet we can't see to replicate it everywhere else. Anybody who has spent a serious amount of time thinking and looking about this knows that that is the central challenge of this age in education.

That's why Ted Sizer has devoted his career to establishing a system which can be recreated and adapted to the facts of every school. That's why David Kearns left a brilliantly successful career in business and wrote a book about what works in reinventing schools. That's why my friend, Frank Newman, stopped being a university president and went to the Education Commission of the States and every year hounded governors like me to help him -- (laughter) -- because we knew that there are examples that work, and nobody has unraveled this mystery. That's why people often run for governor and stay governors of states, believing that we can somehow have the alternative reality that is out there prevail in the end.

And the way this money is going to be allocated is just as important as how much money is being offered. Because Walter Annenberg has challenged the rest of us to match his efforts today and in a way is challenging America to realize that there are millions of good kids and good teachers and good efforts being made out there. And the time has come for us to say, here are the national standards, here is a way of measuring whether we're meeting them, and here's a way of recognizing that in reality all these things have to happen school by school, neighborhood by neighborhood, student by student. And what is our excuse when we can give you a hundred examples of where it's working for not having thousands and thousands and thousands examples of where it's working?

That is the magic of what is being done. This is a very, very important day for American education and for America's future. And the people in the United States will forever be in the debt of these two fine people. Thank you very much.

Editor: Kathy Rutkowski

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Unsolicited submissions are welcome and should be sent to the Editor.

Computers and Learning In An Age of Reduced Expectations

by John Laurence Miller <JLMILLER@vm1.yorku.ca>
York University

An attribute – some would say "a problem" – of most discussion in the field of computers and education is that it usually is driven more by the present reality of what computers can do rather than by a rational analysis of what students need. My goal in this short paper is to propose that we make a reverse shift in our thinking and begin instead with an understanding of the needs and social circumstances of today's students. From there, it should become possible to think more constructively and with clearer focus about how we believe computers ought to be used.

The Social Context of Learning

It may be true that history never exactly repeats itself; on the other hand, the present is like the past in some ways, especially the recent past, and it sometimes is elucidating to look for parallels in the events of different eras. Let me suggest that there may be some important similarities between the 1990's and the 1960's, which go beyond the superficial, and have implications for the ways in which we might expect specifically the world of education to evolve.

It is not just the fact of there being a youthful new President, with a mandate to address the problems that earlier administrations either overlooked and ignored or even in certain cases may have helped to exacerbate. Nor is it just the wave of idealism sweeping across society, a new concern for jobs, for the environment, and for reducing inequality between the "First" and "Third" Worlds. There is also a new style of music, rap, which makes the Beatles seem old-fashion to today's teenagers in the way their parents once felt about Frank Sinatra. There is a feeling that there are problems in the world created by the self-indulgence, and neglect, of an older generation, and that a newer generation has to come along to make things right.
But the 1990's are not the 1960's, and there are important differences as well. The '90's generation on the whole is less confident than were their parents thirty years ago, less willing to participate in angry protest, and less sure that their solutions necessarily will work any better than the ones which came before.

If the '60's were characterized by rebelliousness and alienation, then the psychic state characteristic of the '90's is low self-esteem, often bordering on hopelessness and despair. Students today express their anger and frustration not through sit-ins and demonstrations, but rather through vacant stares and passive stances. I have seen middle school level classes in which almost every student seemed to show one or another (subclinical) symptom of depression.

Most students can see the same reality that the adults can see: of social breakdown and economic decline, and that no one seems to know (or very often to care) about how to solve it. They see a future for themselves which looks difficult to the point of impossible. And all they get from the so-called "responsible officials" often seem just to be lies.

The picture which I am presenting in many ways is quite discouraging and I do not wish to deny or minimize the legitimate reasons for concern. What needs to be underscored as well, however, is that this generation which does not have all the answers is more open-minded than its predecessor, perhaps of necessity, to considering new answers to questions and even to learning new methods for framing, analyzing and solving problems. In this social context, the availability of computer technology is especially important, opening the way, as it does, not just to new information, but also to new ways of thinking.

Computer Technology and the Real Students

If the picture of today's students being offered here is approximately right, we can draw certain inferences about what kind of information should be offered in Computer Studies Programs. Specifically we should keep in mind that we are no longer dealing with a generation who aspires to "turn on, tune in, drop out" to use an old '60's phrase, but who want desperately to have the chance to contribute to rebuilding their society and its economy, to make it function effectively and efficiently once again.

This means, for one thing, that an adversarial view of schooling–the teachers on one side and the students on the other–is no longer either obligatory or feasible. The students want to rebuild society and the teachers want society to be rebuilt i.e. everybody is on the same side. Give them what they want because what they want is also what we want.

It means as well, however, that students need the opportunity to create a broader vision of how the new technology can and should be used. One side of computer education is the technical side and it is being served reasonably well today in a majority of middle class schools, and requires no further comment here. But besides this technical side, there is also a philosophical and visionary side to computer education, and this is the side which today is largely being neglected. I have in mind three particular sets of concerns that, in my opinion, need to be addressed: those of the future entrepreneur and those of the future policy-maker.

Consider first the future entrepreneur. There is a widespread consensus that our future economic growth depends to a great extent on our ability to discover and

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INFOBYTES

PIONEERING PARTNERS Calls for Applications from Innovative Educators

Pioneering Partners for Educational Technology invites educators from eight Great Lakes states who have creatively used teamwork and technology in the classroom to now apply for more than $400,000 in regional grants and scholarships, through Pioneering Partners for Educational Technology.

Created by the Council of Great Lake Governors in 1991, Pioneering Partners seeks to identify and reward educators who have worked with each other and the community to use technology to change the way students learn and teachers teach.

Winning teams receive a $3,000 base grant and another $2,000 in matching funds when a comparable amount is raised by the team. The funds are used to help them tell their success stories to others, so that innovations expand to new classrooms and schools.

Winners also receive special training at a summer Partnership and Educational Summit to provide them with skills to disseminate their stories and information about how technology can be used to change educational landscapes.

The Pioneering Partners teams are link to an electronic network where educators can confer with each other using E-mail; expose students and other teachers to the hundreds of services and resources on the Internet; and, experiment with such telecommunications services as searching for and retrieving files from remote computers worldwide (ftp).

The three winning teams from each of the eight states also confer at the Summit with legislators, government and business leaders from throughout the regions to identify public policy barriers and incentives to wider use of technology in schools.

Applications and more information about the program can be obtained by writing to: Pioneering Partners, Mail Code INAAAJZ,19845 U.S. 31 North, Westfield, IN 46074. The application deadline is April 12.

Participating states are Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin. Teams from K12 schools may apply and finalists will be notified by May 12.

Pionneering Partners was developed through a partnership with GTE East.

* * *

Information Infrastructure Sourcebook Now Available

The Information Infrastructure Project at Harvard's Kennedy School of Government announces the publication of the Information Infrastructure Sourcebook, Version 2.0 (ISSN 1073-6921, December, 1993), edited by Brian Kahin.

The Sourcebook is designed to provide provide planners and policymakers a single volume reference on efforts to define and develop policy for a national information infrastructure. It includes historical policy documents, private sector vision statements and position papers, program and project descriptions (all sectors), landmark reports and pending legislation. The Sourcebook is over 800 pages in length, containing approximately 1,500 pages of original material.

If you are interested in receiving the Sourcebook, send a check for $60 payable to Harvard University, or, fax/e-mail credit card information to:

Document Imaging Services
Office for Information Technology
Harvard University
1730 Cambridge Street, room 202
Cambridge, MA 02138
Tel: 617-496-4077
Fax: 617-495-0715
E-mail: yvonne@harvarda.harvard.edu

The Sourcebook is also available from Computer Literacy Bookshops in San Jose, CA (408-435-1118) and Tyson's Corner, VA (703-734-7771), or via e-mail at info@clbooks.com.

* * *

INTERNET GUIDES AVAILABLE

Eleven new Internet Guides were created between September and December of this year by students enrolled in the course "Internet: Resource Discovery and Organization" at the University of Michigan School of Information and Library Studies, taught by Prof. Joe Janes and Louis Rosenfeld.

These guides are now available from the Clearinghouse for Subject-Oriented Internet Resource Guides. Jointly sponsored by the University Library and the School of Information and Library Studies at the University of Michigan, the Clearinghouse provides access to subject-oriented resource guides created by members of the Internet community. There are currently over 60 guides available via anonymous FTP, Gopher, and WorldWideWeb/Mosaic. Information on accessing the Clearinghouse follows:

anonymous FTP:
host: una.hh.lib.umich.edu
path: /inetdirsstacks
Gopher:
gopher.lib.umich.edu
menu: What's New and Featured Resources=>Clearinghouse...

Gopher .link file:
Name=Clearinghouse for Subject-Oriented Internet Resource Guides (UMich)
Type=1
Port=70
Path=1/inetdirs
Host=una.hh.lib.umich.edu

Uniform Resource Locators (URL):
http://http2.sils.umich.edu/~lou/chhome.html or

gopher://una.hh.lib.umich.edu/11/inetdirs

Descriptive information is available about these projectsavailable from the Clearinghouse. Other questions, suggestions, and comments regarding this course and the Clearinghouse are welcome and may be addressed to:
Louis Rosenfeld < lou@umich.edu>
voice (313) 747-3581
fax (313) 764-2475

Student Views on Global Networking

The Report of the First Global Classroom Youth Congress

by Seth J. Itzkan

Last summer, the First Global Classroom Youth Congress was held in Washington D.C. from June 27-July 1, 1993 in conjunction with the World Future Society's 7th General Assembly. Student participants were drawn from I*EARN and Academy 1. In all, there were six students and each were leaders of their respective networks and represented exemplary networking projects.

The students considered global networking in the context of a future information age school, and more specifically how networking could be used to overcome existing barriers to learning.

The Role of Global Networks in the Information Age School

The students all believed that global networking would play a crucial role in the learning environments of the Information Age. The student comments focused on the need to keep up with the "flow of information", to follow the development of the "global village", and to continue to learn and to be "empowered" by global networks.

Key Recommendations

- Combine telecommunications with cultural awareness programs in schools.
- Integrate telecommunications into foreign language study at an early age.
- Support multicurricular networking programs.
- Enhance communications between schools, districts, and networks.
- Use telecommunications to augment textbooks and keep curricular materials up to date.
- Maintain directories of credible online resources pertinent to subject areas.
- Develop more community computer networking systems.
- Promote student access from public libraries and at home.
- Explore "packet radio" networking options to reduce phone bills.

Specific Recommendations:

LANGUAGE & CULTURAL ISSUES

Cultural & Political Awareness

There is an embarrassing lack of understanding about many of the cultural norms and political situations of corresponding countries.

Recommendations:

- Implement course: Multiculturalism and International Understanding Through Telecommunications".
- Integrate telecommunications activities with cultural awareness programs in school.
- Host online cultures conference and database.
- Host online correspondence guidelines by country, including: salutations, names (by gender), and topics of interest.
- Have foreign embassies contribute to above mentioned guidelines and conferences.

Translation

Foreign language correspondence is often translated poorly with a loss or alteration of original meaning.

Recommendations:

- Involve foreign language department at schools.
- Have skilled language resource persons available online.

Language / Cultural Barriers in Communication.

- In addition to translation, there are also the problems of foreign language incompetence and general mis-communications.

Recommendations:

- Better bilingual education Integration of telecommunications into foreign language studies at an early age.
- Need to be aware of non-written queues which won't show up in text.
- Awareness of network etiquette, "netiquette"
- At least two re-writes for any mass communications

CURRICULAR & ACADEMIC ISSUES

Curricular Departmentalization

hampers development of global classroom activities.

Recommendations:

- Support multicurricular networking programs.
- Improve teamwork between departments.
- Increase collaboration between schools, districts and networks.
- Revise credit system. Have dual credit options for multicurricular networking courses.

Printed Curriculum Out-of-Date

Textbooks often lag years behind what that is available online.

Recommendations:

- Use telecommunications for up to the minute accuracy (augment textbooks).
- Develop and use electronic textbooks.

Online Accuracy

A vast array of information is available online, not all is fully creditable and can be subjective or erroneous.

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What's New in ERICland?

The ERIC CLEARINGHOUSE ON ASSESSMENT AND EVALUATION GOPHER was established by the ERIC/AE and the Department of Education at The Catholic University of America, and became operational on November 15, 1993.

The Gopher site can be reached directly at "GOPHER.CUA.EDU", oryou can navigate to The Catholic University Gopher via Other/North America/ USA/Washington, DC/ The Catholic University of America. At the Main Menu select #11, Special Resources.

The Catholic University of America gopher server

1. The CUA Gopher Service: What It Is and How to Use It/
2. About The Catholic University of America/
3. News, Events, & Publications/
4. Academic Life/
5. Administrative Information/
6. Computing and Communications/
7. Libraries/
8. Public Affairs/
9. Schools of the University/
10. Student Life/
→ 11. Special Resources/
12. Internet Tools and Resources/

Select #2. ERIC Clearinghouse on Assessment and Evaluation/ to arrive at the ERIC/AE Menu which appears below.

ERIC Clearinghouse on Assessment and Evaluation

1. About this gopher server.
2. About ERIC/
3. About the ERIC/AE Clearinghouse/
4. Measurement/evaluation news (12/3/93).
5. Digest file (full text)/
6. Alternative assessment file (full text)/
7. Search for educational/psych. tests/
8. Search other education information/
9. About other major testing projects/
10. The Catholic University of America gopher server/
11. Other education related gopher servers/
12. VMS/PC Gopher tools (temporary)/

The Service aims to provide one-stop shopping for information about educational and psychological testing. It currently features a comprehensive collection of full text articles about the latest in alternative assessment. In cooperation with the Educational Testing Service in Princeton, NJ, ERIC/AE will be soon also host the ETS test collection database. You will be able to search abstracts and descriptions of over 9,700 commercial and non-commercial tests.

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NEW ADDITIONS TO THE US DEPARTMENT OF EDUCATION/OERI GOPHER SERVICE

(1) A Teacher's Guide to the U.S. Department of Education

This publication centralizes and compiles information on the U.S. Department of Education's services to teachers. The Department offers many valuable resources to teachers in the way of programs, services, and publications. The Guide provides a general description of programs and their relative location within the Department.

The full text is available under:

#3 U.S. Department of Education Programs-General Info.
#4 A Teacher's Guide to the U.S. Dept. of Education

(2) National Excellence: A Case for Developing America's Talent

From the Foreword:

The Report discusses changes in America's gifted and talented programs. It describes the how youngsters with gifts and talents that range from mathematical to musical are still not challenged to work to their full potential, and how this neglect will impact on America's future.

The full text is available under:

#6 U.S. Department of Education/OERI Publications
#3 ED/OERI Publications - Full Text

(3) Educational Software

This directory contains educational software which was contributed by callers to the OERI Toll-Free Electronic Bulletin Board (BBS). The directory includes software for IBM PC, Apple II, MacIntosh, Amiga, Atari, and Tandy platforms.

Please read the file "About ED software" for warnings about viruses, suitability, and representations.

To Navigate to The ED/OERI Gopher Server gopher to "gopher.ed.gov".

If your gopher client already points to a server somewhere, travel to Other gopher sites in the world/ North America/ USA/ General/ U.S. Department of Education/

The following is the main menu:

U.S. Department of Education

--> 1. About This Gopher/
2. What's New in This Gopher.
3. U.S. Department of Education Programs-General Information/
4. Educational Research, Improvement, and Statistics (OERI & NCES)/
5. Announcements, Bulletins, and Press Releases/
6. U.S. Department of Education/OERI Publications/
7. U.S. Department of Education Phone Directory <CSO>
8. Educational Software/
9. Veronica Searches and Other Gophers/

Computers and Learning

(Continued from page 3)

market new application of high technology. What future entrepreneurs need is accurate and up-to-date information about what research laboratories are inventing today and expect to be inventing tomorrow and what is likely to be its commercial potential. This includes information about the main categories of software and hardware (from tiny portable computers to large super-computers), the technology used in networking, and its tie-in with other industries, such as entertainment technology (film, sound recording, video- disk), knowledge industries (publishing and education) telecommunication (radio and television, telephone and cable TV). Students should learn as well about futuristic applications of high technology in artificial intelligence, such as expert systems and robotics.

Consider next the needs of the future social policy- maker. There are important questions that society will have to face about the use of computer technology in a socially beneficial way, and these are questions which today's students are well equipped to study and debate. It has been pointed out, for example, the advantages for a society of moving directly from a resource-based to a high-tech economy, bypassing the intermediate stage of traditional manufacturing, with its associated problems of stressful (and often unsafe) working conditions, environmental damage, monotony and general dehumanization. Might we apply this sort of reasoning to the less developed regions of our own society? There are questions as well of ensuring equal access for the poor, the disabled and the disadvantaged. Can computers be made equally "friendly" to women and men? Finally what sort of support should be given to university-based research laboratories, and to private industry, to ensure that within our own society research and technological development continue to advance?

Consider third the needs of what we may call the future global policy analyst. The computer revolution is having effects on the world economy and the international community which are just as profound as the ways in which it is changing our own society. These changes need to be understood. Is it possible, for example, to transform relationships between major producers of computer products, such as the United States and Japan, from cut-throat economic warfare into one of cooperation, or, at the very least, of mutually rewarding competition? How do we ensure that technological progress does not leave the poorest and the weakest countries even farther behind? What contribution could be made by computer technology to enabling sustainable growth in the Third World? What new kinds of technology will we want, or need, in the de-cades and centuries to come?

The point is this: our goal in computer education needs to go beyond the dissemination of technical information and to deal as well with how this information will be used. Today's students want the chance to build a better future. Our school system ought to provide them with the means that will help to turn this hope into a reality.

Youth Congress

(continued from page 5)

Recommendations:
- Better knowledge of online resources - not all are created equal.
- Maintain list of "official" or "credible" online sources pertinent to subject area.
- Know differences between objective and subjective online resources (such as databases and reports available through FTP, versus opinions and conversations available through Listservs).

4. Lack of networking facilities for students outside of schools The opportunities of extending curricular activities beyond the school are limited.

Recommendations:
- Develop more community computer systems.
- Increase student network access from libraries and homes.

TECHNICAL & IMPLEMENTATION ISSUES

Availability/Costs

There is a lack of hardware, phonelines, connectivity, and funds for greater implementation.

Recommendations:
- Campus/school BBS with automated out dialing for news feeds, echoed conferencing, etc.
- Packet radio (spread spectrum radio) telecommunications (no phone bills)
- Offline news and mail readers

Awareness/User skills

Educators have a lack of knowledge about networking technologies and online resources and procedures.

Recommendations:
- Internet certification programs
- Technical training programs
- Better documentation
- Directory of resources

System Abuse

There is occasionally a lack of seriousness on the part of users, resulting in "hacking", improper language, etc.

Recommendations:
- Require oath signature sheet for access rights from school.
- Access rights to be revoked if abused.

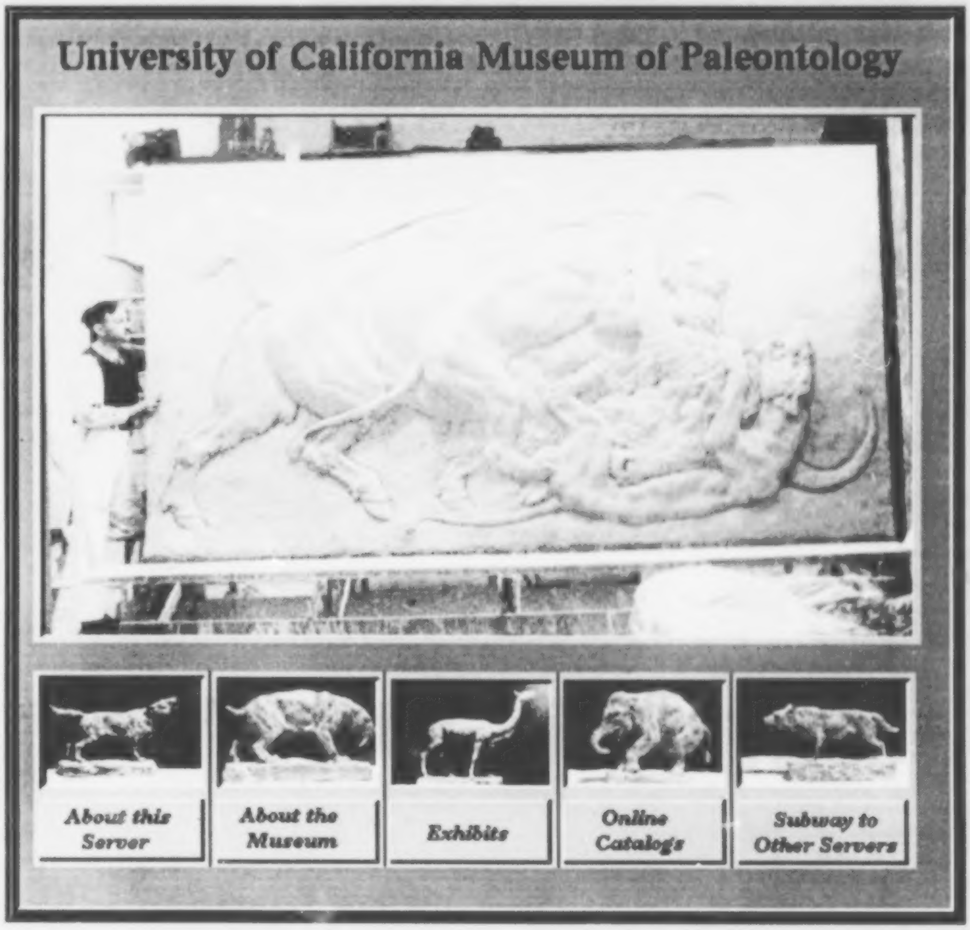
Seth Itzkan has written a more comprehensive article on the Global Youth Congress which will appear in the January 1994 issue of the T.H.E. Journal.

The Instruction Corner:

Internet's "Killer Applications"— Mosaic and Networked Images

by Tony Rutkowski <amr@isoc.org>
Vice-President, Internet Society /Director of Technology Assessment, Sprint

This is the second of a three-part series on the Internet's 'Killer Applications'. Here Mr. Rutkowski discusses Mosaic and Networked Images.



One of the developments that has made things like Mosaic a reality is open image technology advances. There are lots of new acronyms

The term most frequently encountered is GIF. It stands for Graphics Interchange Format and was devised to provide a simple, scalable way to exchange and display still images across all computer platforms - so you could distribute the same image to a PC, Mac, or Unix workstation. It can handle color or monochrome pictures of virtually any size or detail. Most still images are distributed today in this format and the files are identified with the suffix ".gif" A somewhat more powerful and flexible image format technique that is rapidly generating interest is JPEG - after the initials of the international standards group that developed the format. JPEG also compresses images - which allows for smaller files. A motion picture variant of JPEG is MPEG - which allows for a wide variety of moving images to be shown.

There are a wide variety of other still and moving picture formats based on specific computer platforms or individual computer application programs. Numerous different software packages are available to display all these images - some open, some closed, some free, some shared, some sold - and the better products can even convert fairly easily among many of the different formats. A few of the programs are available at NCSA. Others can be found scattered all over the Internet on servers that are discoverable and can be obtained using Gopher or other combinations of discovery and retrieval tools.

What's New in Discussion Groups?

KID MEDIA DISCUSSION LIST

The Kid Media Mailing List is a list started on Nov 23 1993. The purpose of the listing is to provide a forum for people interested in, or involved in, the creation, production, distribution and/or consumption of media who's primary target audience is childre to discuss critical issues.

TO SUBSCRIBE/UNSUBSCRIBE or get a help file – Send to:

<kid.media-request@airwaves.chi.il.us >

In the SUBJECT field of the message, write one of the following commands:

1) Subscribe
2) Unsubscribe
3) Help

TO SEND MAIL TO THE LIST – Use the following address:
<kid.media@airwaves.chi.il.us>
DO NOT send subscription requests to the list!

The Owner of the List is William Pfeiffer wdp@uiuc.edu

The list is unmoderated reflector-type, but will be monitored. It was originally designed to offer those involved in the creation of kids media an opportunity to talk among themselves about matters pertaining to their craft(s), and although now open to the public, the hope is to keep the conversation ata high level of consideration.

* * *

THE INDIANnet CENSUS INFORMATION AND COMPUTER NETWORK CENTER

The INDIANnet Census Information and Computer Network Center is the first national computer network to provide Native Americans with a place to share electronic information about themselves. INDIANnet services include computer conferences and private electronic mail for Indian tribes, nonprofit organizations and individuals. There is also federal information , a specialized collection of American Indian and Alaskan Native research reports extracted from the Educational Research Information Clearinghouse (ERIC), a number of public domain software programs , and an amazing collection of authentic electronic Indian artwork and graphics. The most ambitous project is the Tribal Profiles Database.

To Connect via Modem/telephone: The INDIANnet BBS can be connected by setting your computer's telecommunication package to N/8/1. The INDIANnet BBS network will automatically adjust modem settings up to baud rates of 14.4. Or if you would prefer, a graphics terminal interface for either Macintosh and Windows computers may be downloaded from our network and installed on your computer. VT100 and ANSI terminal emulation is supported.! Dial 605- 393-0468

To Connect via the Internet : INDIANnet supports two Internet services: a listserv and a FTP site.

To subscribe to our listserv, send an e-mail message addressed to: **<LISTSERV@spruce.hsu.edu>** In the message area of your e-mail, include the command: sub INDIANnet-L "your name"

The INDIANnet FTP site may be accessed by typing: ftp pines.hsu.edu (or) ftp 198.16.16.10 Login Name: anonymous Password: Your e-mail address.

A Telnet site is under development and will be available soon.

For more information call or write:

Dr. George Baldwin, Chair and Professor of Sociology at Henderson State University is the Director of INDIANnet. He can be reach for more informaton at Box 7573, Henderson State University, Arkadelphia, AR 71923. E-mail: BALDWIN@HOLLY.HSU.EDU. Voice telephone is (501)246-5511 x3292 (day) or (501)865-4422 Fax: (501)246-3199.

INDIANnet is a project of Americans for Indian Opportunity, a national Indian organization dedicated to enhancing the cultural, social, political and economic self-sufficiency of tribes. It is headquartered on the Santa Ana Indian Reservation in New Mexico. For more information about AIO's work, contact LaDonna Harris, President and Founder, Americans for Indian Opportunity, 681 Juniper Hill Road, Bernalillo, NM 87004. Telephone 505-867-0278 (voice) or 505-867-0441 (fax).

* * *

LEARNING DISABILITY INFORMATION EXCHANGE LIST

LD-List is an open, unmoderated, international forum that provides an information exchange network for individuals interested in Learning Disabilities. Subscribers include persons with Learning Disabilities, family members and friends, educators and administrators, researchers, and others wishing to know more about this disease. Any topic related to Learning Disabilities is appropriate for discussion.

To subscribe, send an email message to:

<LD-List-Request@East.Pima.EDU>

In the BODY of the note say ONLY: SUBSCRIBE

Owner: LD-List-Owner@East.Pima.EDU

The NetTEACH Project Profile: The Geometry Forum

The Geometry Forum is a server devoted to all aspects of geometry and its teaching. The Forum currently carries seven newsgroups:

geometry.announcements
geometry.college
geometry.forum
geometry.institutes
geometry.pre-college
geometry.puzzles
geometry.research

It is accessible by pointing your newsreader to:

< forum.swarthmore.edu>

instead of your local news server, or you can subscribe to the Forum mailing lists by sending a message to:

<majordomo@forum.swarthmore.edu>

The body of the message should read 'help'. The subject line will not be processed. This will send you a document that should tell you everything you need to know.

There are also geometry-related archives available via anonymous ftp or gopher. The address for both is:

<forum.swarthmore.edu>

Available on the archives are articles, book reviews, abstracts of funded projects, lists of resources, software for the Mac and PC platforms, proceedings from conferences, and monthly digests of past postings.

The Forum hopes to attract those who simply enjoy geometry, including high school and college teachers and students, and research geometers.

The National Science Foundations has awarded The Geomtry Forum a three-year grant to build a community of Geometry learners. Special efforts will be made to get school teachers on board. In particular, The Forum will be working with Philadelphia teachers (and others) to develop materials for students and teachers.

Software will be developed to facilitate the transmission and interpretation of symbols and diagrams. The first platform will be the Macintosh.

In addition, there is a plan to work on software which is particularly convenient, simple, and agreeable to use for the computer-shy

Comments and suggestions from the Internet community are welcome, and should be sent to:

<forum@forum.swarthmore.edu >

or posted to :

<geometry.forum newsgroup>

Please send any questions or comments about accessing the Forum to:

<annie@forum.swarthmore.edu>

The Digitial Calendar

January 1994

9-11 January **The Internet Connection: Issues and Applications in K12 Education.** Thunderbird Convention Center, Bloomington, MN. Keynote speaks: Connie Stout (TENET) and Gleason Sackman (NoDAK SENDIT). For information, contact Sue Soine, TIES Training Center, 2665 Long Lake Rd, Suite 250, Roseville, MN 55113-2535. tel +1-612-638-8780; fax +1-612-638-8798

February 1994

8-11 February **TCEA'94 Kids and Technology**; Austin Convention Center, Austin, Texas. Over 200 hands-on workshops, activity sessions, informative concurrent sessions and general sessions. An Exhibits area of over 175 booths will showcase exhibitors demonstrated a wide array of state-of-the-art technology for education. Pre-registration deadline is January 15. For additional information, call 1-800-282-TCEA (rknight@tenet.edu) and ask for TCEA Conference Info.

16-20 February **AECT Annual Convention and InCite'94 Exposition** Nashiville, Tennessee. Choose from over 300 seminars, special events, workshops, and new technology program tracks. Pre-registration deadline is January 14, 1994. For additional information, call +1-202-347-7834 or send a fax to +1-202-437-7839

March 1994

6-8 Mar. **1994 SYMPOSIUM ON APPLIED COMPUTING (SAC '94) SPECIAL TRACK ON COMPUTER APPLICATIONS IN EDUCATION** Phoenix Civic Plaza, Phoenix, Arizona. For general inquiries please contact the conference director, Ed Deaton, at: Dept. of Mathematical Sciences, San Diego State University, San Diego, CA 92182. <deaton@cs.sdsu.edu> tel: +1-619-594-5962; fax: +1-619-594-6746

16-19 Mar **STATE 94 SOCIETY FOR TECHNOLOGY AND TEACHER EDUCATION – Fifth Annual Meeting;** Washington, D.C. This year's theme is "Methods and Models for the 90s." For information contact: STATE 94, AACE, P.O. Box 2966 Charlottesville, VA 22902 USA <AACE@virginia.edu>; tel +1-804-973-3987; fax: +1-804-978-7449

April 1994

4-8 Apr. **AERA (ENETSIG)** Meeting in New Orleans.Conference Theme: Aternative Learning Environments: Work, School, Play. For AERA E-NET SIG: Contact Daniel Blaine, University of Hawaii at Manoa, USA
<daniel@uhunix.uhcc.Hawaii.Edu>
<daniel@uhunix.bitnet >

7-10 Apr **The New Learning Environment: Serving Diversity Through Technology** in Albuquerque, New exico. Sponsored by the National Eduation Association (NEA) and the Rocky Mountain Association for Technology in Education (RMATE). Inquires to: Libby Black, Director, Boulder Valley Internet Project Boulder Valley Public Schools & The University of Colorado at Boulder.
<black@bvsd.k12.co.us>
phone: (303) 447-5090
fax: (303) 447-5024

14-16 Apr **NCCE 23rd Annual Conference,** Spokane Center, Spokane, Washington. The Northwest Council for Computer Education invites educators and school administrators to come see the latest hardware, software, technical publications, and related equipment in the academic environment. For information, write to NCCE'94, 1277 University of Oregon, Eugene, OR 97403-1277 USA

27-29 Apr. **The Distance Education Research Conference** presented by Texas A & M University and St. Philip's College in San Antonio, Texas. Inquiries to:
Dr. Karen Murphy, Conference Chair, Educational HRD, Texas A & M University, College Station, Texas 77843-3256; tel: +1 409-845-3016; fax: +1 409-845-0409

May 1994

1-6 May. **Fourth Inivitational East/West Seminar on New Technologies in Education** in Budapest, Hungary. Attendance by invitation only. For further information send a message to:
<budapest@uhavax.hartford.edu>
or fax to: +1 202-242-7002, or mail to: International Technology Exchange, Box 49, Bloomfield, CT 06002 USA

11-14 May. **CADE'94 CONFERENCE : Distance! Quelle Distance?** The 1994 conference of the Canadian Association for Distance Education will be held in Vancouver, B.C., Canada. Inquiries about the conference can be directed to CADE '94, Centre for Distance Education, Simon Fraser University, Burnaby V5A 1S6 BC., Canada; tel +1-604-291-3524; fax+1-604-291-4964; Heather_Persons@sfu.ca

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

NetTEACH NEWS is published ten times a year.

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Site licenses are available for the ASCII version. Mulitiple discounts are available for 10 or more hardcopy orders from a school or school district.

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NetTEACH NEWS

Volume 1, No. 8 The Newsletter for K-12 Networking Educators January 1994

The Real Challenge of GettingTeachers and Students Onto the Information Superhighway

by Kathy Rutkowski <kmr@chaos.com>

It is now clear, after Vice President Gore's January 11speech in Los Angeles outlining the White House strategy for building the Information Superhighways , that the building of the so-called National Information Infrastructure (NII) is perhaps most comparable to the US Westward Expansion and the opening of public lands to the those willing to 'claim the land' for themselves. (the Homestead Act)

Let us hope that this time around, Washington can do a better job of protecting all Americans, including the rights of those whose inheritance is up for grabs than it did for the Native Americans back in the 1800s.

Vice President Gore assures us that the Information Superhighways will not 'detour the poor'. Perhaps not but access ramps in remotely populated regions will be costly and difficult to build. It will also be difficult to guarantee that those unregulated superhighways will not plow through communities and displace certain segments of society, causing further social stratification than already exists. Connectivity alone is no guarantee that all Americans will truly have an equal opportunity to take advantage of those superhighways.

We recognize that Washington cannot possibly build these global information highways using only federal money. Billions of dollars are involved, and due to the fast-paced changing nature of the technologies it is difficult to even come up with a fixed figure amount. In any event, Washington does not have the resources to undertake such a massive effort.

We understand that computer, telecommunications, and networking technologies are rapidly changing, and that over zealous regulation could threaten development and indeed stifle the very technological innovations that can drive costs down and the entreprenurial spirit that can open the vast global information resources to all people across the globe.

We accept the need for corporate involvement and incentives to encourage entrepreneurs to risk their capital and develop new information technologies and information products for a mass market and at fair and reasonable prices.

We applaud the government decision to enter into new partnerships and ventures with these newly-developing companies, and to encourage leveraging funds and resources to optimize benefits and minimize costs to various segments of society.

(Continued on next page)

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Dan Driscoll, a student at Georgetown Day School in Washington, D.C. shares his enthusiasm about educational networking.

InfoBytes...6
NII Advisory Council named and an Information Infrastructure Gopher established. A new version of the On-Line World Shareware Book, a free NASA CD-ROM and a BBN report on K-12 and the NII are available. WYN—a student's AP/UPI type service—set up by Free-Net Finland. A new sublist set up in the Financial Economic Network regarding Educational Finance, and a free workshop sponsored by NCES, NSF, and NASA. to be held in february in Orlando, FLA

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Anthony Rutkowski concudes his series on "killer applications" with a discussion of PC Eudora. .

Canada's SchoolNet Gopher 9
Canada's Carleton University has established an excellent server for K-12 educators—it's definite worth a look.

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1994 is shaping up to be an interesting and busy year for K-12 Networking Educators with lots of regional and national conferences and workshops scheduled.

We question, however, the kind and degree of deregulation now proposed, and the extent that Washington is willing to let private industry build the future information age highways using profit as the sole motive. Can, and should we assume that private industry will regulate itself and will limit its desire for profit for the sake of such segments of society as education. Will Washington be able to effectively monitor deregulation and control competition?

The White House seems convinced that universal access can be achieved through deregulation. Many of us, particularly in the field of education, are somewhat wary. Nonetheless, we are convinced that this administration has its heart in the right place, and is truly committed to getting all Americans onto these Information Highways, including all teachers and students. It is asking for help and it is challenging all Americans to work with government and private industry.

It is time for Americans to change the way we think about ourselves and our government, and that is more true in regards to education than perhaps any other industry or sector. Education has always looked to government and to industry somewhat as a beggar.

Teachers and their students are not beggars, and they must be viewed by others and themselves as significant contributors to society. One of the great promises of the Information Age is that educators and students will finally realize their potential and stand as co-equal partners with government and industry.

The challenge is ours — we who care about the future of education in the United States and the globe. If we seize the moment we can build a global superhighway system that will link people of all cultures and countries.

If we sit by idly waiting for Washington, or Canberra, or Moscow, or Paris, or London, or Ottawa to build superhighways to our door, we will surely be disappointed.

The future belongs to those who have a vision of a better tomorrow and are willing to work to achieve that vision.

Early this morning as I began this article, an intense earthquake struck Los Angeles, bringing down buildings, highways, and shattering peoples homes and lives.

By this afternoon, some people were already out buying provisions, and thinking about tomorrow.

The people of Los Angeles will rebuild their city, and their highways, and their lives. Washington will help, but the real work will be done by the people themselves.

It is that spirit, that spunk, that we need as we dare to dream of a future for education in the Information Age. Access to the Information Superhighways will not come cheaply or easily, and it will tap every ounce of energy and creativity that we possess to build networked schools.

Education will not be left behind this time unless we let it. We can no longer settle for handouts and castaways. We must articulate our needs and walk to the future with our eyes open and are hands no longer outstretched for gifts but willing to do work and eager to reach out to others in collaboration, friendship and cooperation.

We need to work together to leverage our resources and devise a strategy that is based on fairness and equity. We need to forge new partnerships with industry, with local and distant communities, and with national and local governments.

Our most critical task is to clearly justify our claim, not on the basis of some divine right or pathetic need, but on the merits of our strong and persuasive arguments that we, better than anyone else, can till that vast land and produce food to feed an information-hungry nation. Education is a knowledge-producing industry. It has a vital role to play in the development of the US national, and indeed the global economy.

In this age where knowledge is a power and a wealth-determinant, educators are strategically-positioned to claim a part of the new information wealth.

As Vice President Gore said in his speech,

The future really is in our hands.

The future is ours, not to seize rapaciously, but to claim for future generations of Americans be they black, white, Indian, Asian—they are all teachers and learners and have a legitimate right to access the vast global information resources and use them for the benefit of themselves and mankind.

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Unsolicited submissions are welcome and should be sent to the Editor.

Excerpts from VICE PRESIDENT GORE's REMARKS on January 11, 1994 at Royce Hall, UCLA, Los Angeles, California

The historian Daniel Boorstin once wrote that for Americans "nothing has happened unless it is on television." This of course leaves out a few major events in our history. But this meeting today is on television – so apparently this event is actually occurring.

I join you to outline not only this Administration's vision of the National Information Infrastructure but our proposals for creating it.

Last month in Washington, I set forth some of the principles behind our vision. Today I'll talk about the legislative package necessary to ensure the creation of that national infrastructure in a manner which will connect and empower the citizens of this country through broadband, interactive communication.

We've all become used to stumbling over cliches in our efforts to describe the enormity of change now underway and the incredible speed with which it is taking place. Often we call it a revolution – the digital revolution.

What we've seen in the last decade is amazing. But it's nothing compared to what will happen in the decade ahead. The word revolution by no means overstates the case.

But this revolution is based on traditions that go far back in our history.

Since the transcontinental telegraph that transmitted Abraham Lincoln's election victory to California in real time, our ability to communicate electronically has informed and shaped America.

It was only a year before that election that the Pony Express was the talk of the nation, able to send a message cross country in seven days. The next year, it was out of business.

Today's technology has made possible a global community united by instantaneous information and analysis. Protesters at the Berlin Wall communicated with their followers through CNN news broadcasts. The fax machine connected us with demonstrators at Tiananmen Square.

So it's worth remembering that while we talk about this digital revolution as if it's about to happen, in many places it's already underway. Even in the White House.

The day after Inauguration, I was astonished to see how relatively primitive the White House communications system was. President Clinton and I took a tour and found operators actually having to pull cords for each call and plug them into jacks. It reminded me of the switchboard used by Ernestine, the Lily Tomlin character.

And there were actually phones like these all over the White House. They're still there. But we made progress. They're only in the press room now.

Those phones didn't meet our needs. So now, especially on trips, I use a cellular phone.

Our new ways of communicating will entertain as well as inform. More importantly, they will educate, promote democracy, and save lives. And in the process they will also create a lot of new jobs. In fact, they're already doing it.

The impact on America's businesses will not be limited just to those who are in the information business, either. Virtually every business will find it possible to use these new tools to become more competitive. And by taking the lead in quickly employing these new information technologies, America's businesses will gain enormous advantages in the worldwide market-place. And that is important because if America is to prosper, we must be able to manufacture goods within our borders and sell them not just in Tennessee but Tokyo – not just in Los Angeles but Latin America.

By now, we are becoming familiar with the ability of the new communications technologies to transcend international boundaries and bring our world closer together. But many of you are now in the process of transcending other old boundaries – the boundary lines which have long defined different sectors of the information industry. The speed with which these boundaries are eroding is quite dramatic.

I'm reminded of an idea of Stephen Hawking, the British physicist. ...Hawking has speculated about a distant future when the universe stops expanding and begins to contract. Eventually, all matter comes colliding together in a "Big Crunch," which scientists say could then be followed by another "Big Bang" – a universe expanding outward once again.

Our current information industries – cable, local telephone, long distance telephone, television, film, computers, and others – seem headed for a Big Crunch/Big Bang of their own. The space between these diverse functions is rapidly shrinking – between computers and televisions, for example, or interactive communication and video.

But after the next Big Bang, in the ensuing expansion of the information business, the new marketplace will no longer be divided along current sectoral lines. There may not be cable companies or phone companies or computer companies, as such. Everyone will be in the bit business. The functions provided will define the marketplace. There will be information conduits, information providers, information appliances and information consumers. That's the future. It's easy to see where we need to go. It's hard to see how to get there. When faced with the enormity and complexity of the transition some retreat to the view best enunciated by Yogi Berra when he said: "What we have here is an insurmountable opportunity."

Not long ago this transition did indeed seem too formidable to contemplate, but no longer. Because a remarkable consensus has emerged throughout our country – in business, in public interest groups and in government. This consensus begins with agreement on the right, specific questions we must answer together.

How can government ensure that the information marketplace emerging on the other side of the Big Crunch will permit everyone to be able to compete with everyone else for the opportunity to provide any service to all willing customers? How can we ensure that this new marketplace reaches the entire nation? How can we ensure that it fulfills the enormous promise of education, economic growth and job creation?

Today I will provide the Administration's answers to those questions. But before I do let me state my firm belief that legislative and regulatory action alone will not get us where we need to be. This Administration argued in our National Performance Review last year, that government often acts best when it sets clear goals, acts as a catalyst for the national teamwork required to achieve them, then lets the private and non- profit sector, move the ball downfield.

It was in this spirit that then-Governor Clinton and I, campaigning for the White House in 1992, set as a vital national goal linking every classroom in every school in the United States to the National Information Infrastructure.

It was in this same spirit that less than a month ago, I pointed out that when it comes to telecommunications services, schools are the most impoverished institutions in society.

(See **GORE ON NII** *on page 9)*

Creating the On-line Classroom

by Michele Huston and Geoff Huston (Part I)

(This begins a two-part series by Michele and Geoff Huston describing the experiences of establishing an internet-based networking program in an elementary school. Michele is associated with the Wanniassa Primary School and Geoff with the The Australian Academic and Research Network)

The trend towards computer networking is perhaps one of the most vibrant and vital new uses of technology. This technology has already proved its worth within the tertiary academic and research environment, and more recently within the corporate and government sector. Computer networks are now an accepted part of the basic infrastructural services necessary to conduct business within such domains. It is now evident that there is a similar process of technology-inspired change happening within our primary and secondary school environ-ment, and computer net-works are now starting to play their part in creating a new model for the classroom.

The deployment of such technologies into the education environment of 5 - 12 year old children (the so-called K-6 domain) has been very limited to date, yet it is in this environment that perhaps the most striking challenges exist. During these years the foundations for good communications skills are constructed. It is reasonable to suggest that within 4 years we will see a close to universal uptake in the use of computer networks within the K-6 educational environment. There is much that has to be accomplished within this period to ensure that we can sensibly realise the opportunities such technologies offer to the class-room and the children. At this stage the efforts to use communications networks within the K-6 educational environment are largely pioneering efforts carried out by dedicated individuals, which bear many of the hallmarks of experimental projects rather than of wide-scale programs. However there are valuable lessons to be gleaned from these efforts in terms of selecting appropriate paradigms for subsequent wider deployment.

This article describes the initial experience of the introduction of computer-mediated communications technology into a K-6 school environment in Australia, and will draw some conclusions relating to the lessons learnt from this initial activity.

The Wanniassa Hills Primary School

Wanniassa Hills Primary School (WHPS) is a K-6 school located within suburban Canberra, Australia. The school has an enrollment of 490 students and 18 teaching staff, and has 17 classes with an average class size of 29 students and a number of specialist and support staff.

The Wanniassa Hills Primary School building is described as open plan, with the classrooms clustered around a central library facility. However, the classes are organised along traditional lines in single age groupings with one teacher predominantly responsible for the education of his/her class for the entire school year. The school has a small number of Apple Macintosh computers for classroom use, with a program in place to place one computer in every classroom within the next two years.

The communications facility is provided by a dial-up Internet connection, using a modem and a phone line to connect an individual school computer with the Australian Internet provider, AARNet. This communications facility was installed in November 1993, and a program of teacher familiarisation and introduction to Internet resources and capabilities at the school was undertaken one of the authors.

The K-6 view of the Internet

One of the most immediate initial results of this program has been confirmation of the value of elec-tronic messaging (e-mail) as the basic glue of the worldwide Internet. Students from Wanniassa Hills Primary School are exploring this networked world from their class-room by exchanging e-mail with other classrooms around the world.

A steady daily stream of messages is now being exchanged with classes in the USA and Canada, with the children exploring points of similarity and difference in their respective environments. The immediacy of the interaction is a particular attribute of the e-mail network, where delivery of a message occurs within a matter of seconds, and responses generally received by the next morning. Such immediacy of contact allows the rapid formation of trust and familiarity, and both teachers and children have quickly formed friendships with individuals scattered around the globe.

If the scope of the K-6 Internet was simply that of keypals drawn from around the world it would still be a valuable addition to the school environment. However there is a vast array of additional resources and services that are valuable as both a teaching resource and as a resource to the children. The K-6 Internet also includes a large selection of network mediated projects that the classes can participate in. Indeed the most difficult part of this activity has been in choosing which project to participate in! Projects include a large number that are freely available over the Internet, complemented by a smaller number of subscription-based projects which include the delivery of supportive material to the class during the execution of

(See **Wanniassa** *on next page)*

KeyPals:They're Just a Few Keys Away

by Dan Driscoll

For people who enjoy writing letters, there is a new thing to do –get on the INTERNET. The INTERNET is a computer network which allows two classes from different cities, towns, villages and even countries to write to each other. So what is so different about this? The letters are on the computer. Instead of sending them by mail, you simply open the program, write the letter and send it with a modem over the telephone to your keypals, wherever they live. It gets there instantly. And you do not have to stick with one class or person. For example, my class (Laura's 5th) found a letter from someone living in the South Pole.

My class writes letters to a class in Wanniassa Hills Primary School which is in Canberra, Australia, 10,000 miles and fourteen time zones away. It has been lots of fun. Unfortunately we may soon have to get new keypals. This, of course, is because in Australia their summer is our winter. So they are now on summer vacation, and we will get keypals in a new fifth grade when they return in February.

Writing to the keypals has taught those of us in Laura's class what it is like living in Australia. I learned what sports, foods, and games they liked. Even though I already had an Australian friend, I have learned a lot from my keypals.

Recently my keypals' class won the "Keep Australia Beautiful" contest. They started a garden, a worm farm, and a compost heap at their school. They even began a litter program (unfortunately that has not been too successful since the other kids in the school are quite reluctant to pick up litter). The kids at Wanniassa Hills have been in the newspaper and on TV. We are proud of their achievement!

A thing I learned from my keypals was that our school is not the only school to have buddy classes. My keypals' class has a buddy program with second graders in their school. They do environmental activities with their buddies.

All in all I think our activity on the INTERNET is absolutely wonderful. It not only gives me a chance to share thoughts with people around the world, but it gives me a chance to work on my touch typing at the same time. If you are interested in having a keypal ask your teachers. The first thing your teacher will have to do is get an electronic address. They you have to find a class to work with. It is a good idea to try the INTERNET since it gives people a chance to go all over the world without even buying a plane ticket.

Reprinted with permission of author. First appeared in The GDS Glimpse,The Middle School Newspaper of the Georgetown Day School in Washington, DC USA, Vol III, No4, 1994.

Creating an On-Line Classroom (*continued from page 4*)

Wanniassa (continued from page 4)

the project across the network. These projects are advertised on the education mailing lists and teachers are encouraged to organise their own projects and share involvement in the project with their peers around the world. Often such broader participation projects are the outcome of classroom to classroom contact.

In addition to using computer networks for keypalling activities there is a vast wealth of information freely available across the Internet, with much of this information of relevance to activities undertaken in the K-6 environment. Both students and teachers have the ability to browse the many electronic libraries and databases on-line to the Internet, retrieving diverse information formats which integrate text, pictures, sounds and movies into the information response. The Internet is becoming a highly populated environment, and it is now (December 1993) estimated that some 10 - 15 million individuals inhabit the global network, with a steady growth rate which has seen this number double every 9-10 months for some years now. As with any highly populated environment meeting one's peers can be a difficult experience for the network newcomer. However within such a dynamic growth environment the issue of accommodating the needs of these new users is well understood. Inherent in the social structure of the Internet are various meeting places for particular interest groups. The role of an introduction agency is undertaken by common interest mailing lists and Usenet newsgroups (a global conferencing system which is the aggregate of over 3, 000 separate public discus-sion areas), where individuals can work in a highly focused manner with their peer community.

From the authors' perspective the mailing list Kidsphere has been absolutely essential for making initial contact with other schools and teachers as well as locating relevant projects and useful information sources.

Projects

Teachers have found that e-mail correspondence can been effort-lessly incorporated into the primary school curriculum at all levels. At the simplest level it provides a basis for meaningful journal writing. It also provides an outlet for the publication of stories and can be incorporated into the mathematics, science and social science curriculums.

Year 5 were the first class to make contact with the US and have now undertaken both keypal exchanges and

*(See,**On-Line Classroom**, p12)*

INFOBYTES

U.S. Advisory Council on the NII Named

On January 6, the Secretary of Commerce, Ronald Brown announced the composition of the Advisory Council on the NII which he chairs.

One educator was named—Bonnie Bracey, a 1992 Christa McAuliffe Award Recipient, and a elementary school teacher in Arlington, VA.

The 27 Member Advisory Council includes:

1. Morton Bahr, Communications Workers of America
2. Toni Carbo Bearman, U. of Pittsburgh
3. Bonnie Bracey, Arlington VA Public Schools
4. John Cooke, The Disney Channel
5. Esther Dyson, EDventure Holdings
6. Craig Fields, MCC
7. Lynn Forester, FirstMark Holdings
8. Carol Fukunaga, Senator from Hawaii
9. Haynes Griffin, Vanguard Cellular Systems
10. George Heilmeier, Bellcore
11. Susan Herman, City of Los Angeles
12. James Houghton, Corning Inc.
13. Stanley Hubbard, Hubbard Broadcasting
14. Robert Johnson, Black Entertainment TV
15. Robert Kahn, CNRI
16. Deborah Kaplan, World Institute on Disability
17. Mitchell Kapor, EFF, Inc.
18. Delano Lewis, NPR
19. Alex Mandl, AT&T
20. Edward McCracken, Silicon Graphics
21. Nathan Myhrvold, Microsoft Corp
22. N.M. Norton, Jr. , Wright, Lindsey, and Jennings
23. Vance Opperman, West Publishing
24. Jane Smith Patterson, State of North Carolina
25. Bert Roberts, MCI Communications Corp
26. John Sculley, Spectrum Information Technologies
27. Joan Smith, Oregon Public Utility Commission

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Information Infrastructure Gopher

An Information Infrsatructure Task Force Gopher is up and running. Pertinent press releasea, legislation, meeting schedules, committee reports, and minutes of task force meetings are being posted.

You can reach the system via:
1. telnet to <iitf.doc.gov> (198.49.199.20)
2. gopher to: <iitf.doc.gov>
3. dial +1 202-501-1920

The Main Menu is as follows:

Root gopher server: ntiaunix.1.ntia.doc.gov
► 1. Frequently Asked Questions/
2. Directory/Points of Contact/
3. Press Releases/
4. Schedules/Calendar of Events/
5. IITF Committee Reports and Minutes/
6. Speeches, Documents and Papers/
7. Selected Legislation/
8. Other Gopher and Information Servers/

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WYN - World's Youth News Established by Free-Net Finland

WYN was recently established by Free-Net Finland. It is designed to be a global student news agency.

Students from around the world are encouraged to send in news of their every day life, and to express their opinions on critical issues of the day, and in their lives.

Free-Net Finland is an affiliation of NPTN - National Public Telecomputing Network, host of the several Free-Nets in the States, Canada, New Zealand, Germany and Finland. Academy One, the Big School of the Free-Nets will also be the gateway of this new activity. Free-Net Finland is the founder and host of WYN.

News is sent to a bulletin board , and any contributor will receive all other news items from the other student journalists that are also posted onto the WYN Bulletin Board.

The Finland's Broadcasting Company, the national tv and radio media and newspapers working is working with WYN. As partners of Free-Net Finland it will use some of the material sent to WYN tfor its veiwing audiences.

Students are encouraged to send the news to <wyn@freenet.hut.fi > There is no cost to participating.

The WYN address is
< WYN@FREENET.HUT.FI>

Send questions to Heli Touru -
HETOURU@FREENET.HUT.FI

FREE CD-ROM ON NASA MISSION TO PLANET EARTH AVAILABLE

This is to announce the availability of the SIR-C Education Pre-launch CD-ROM, Volume ID SIR-CED01. This is part of a free educational package entitled 'The SIR-C Education Program' (SIR-CED), designed for middle school and high school students. SIR-C stands for Spaceborne Imaging Radar-C and is, the acronym used for a radar instrument built to fly on the Space Shuttle and take radar 'pictures' of the Earth. It is scheduled for launch on the Space Shuttle Endeavor in April and August of 1994. The CD-ROM can be opened using a CD reader on Macintosh, SUN, and IBM PC computers. It contains a User's guide, a guide for teachers, lesson plans, and images from sites all around the world which will be covered by SIR-C. Software for displaying the images provided on all three supported computer platforms is included on the CD. The comprehensive data set incorporated into the SIR-CED CD-ROM may also be useful for some engineers and scientists, who wish to explore the potential of radar observation.

SIR-CED is an education initiative based around the NASA's imaging radar program and is designed for Middle School and High School students.

The SIR-CED package consists of the following components:
1. Teachers' Resource Guide (160 pp)
2. Presentation Materials
3. Lesson Guides, including activities for students
4. A CD-ROM containing:
- radar images
- shuttle hand-held photographs taken by the astronauts
- digitized location and topographic maps-ground photos easy-to-use software for image display and analysis documentation (including 1-3 above)
5. A selection of videos about imaging radar
6. Teacher Workshops for training

The Teachers' Resource Guide contains a basic introduction to NASA's Mission to Planet Earth, how imaging radar and SIR-C fit into that program and how they work, and how scientists use imaging radar data in their studies of the Earth's environment. Also included in the package are easy-to-use software to display the images provided (for PC, SUN and Macintosh).

(continued on next page)

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INFOBYTES

To order a copy of the SIR-CED CD-ROM, please contact:

Annie Richardson
Radar Data Center
M/S 300-233
Jet Propulsion Laboratory
California Institute of Technology
4800 Oak Grove Drive
Pasadena, CA 91109, USA.
tel : +1 818-354-2386; fax +1 818-354-9476; e-mail:
<Holmes@berlin.jpl.nasa.gov>

The SIR-CED Educational Package is distributed free of charge to educators.

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CONNECTING WITH THE FUTURE

Understanding the Building, Implementation, and Support Mechanisms of Education Telecommunications Networks; Orlando Marriot-International Drive; Orlando, Florida February 21-22, 1994.

This conference, jointly sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES), the NSF, and NASA, is designed to provide an exciting forum to enable participants to develop familiarity with the terms, concepts, and possibilities of a networked environ-ment. It will be conducted in a workshop format and is intended to educate rather than to provide technical specifications. In addition to the many informative sessions offered, a computer lab will be set up to afford participants the opportunity to utilize visual and hands-on experiences for some of the applications that are being discussed in the Conference.

To register for this Conference please send your (Name, Organization, Title,Address, Phone Number, Fax Number, E-Mail Address) to Jerry Malitz National Center for Education Statistics 555 New Jersey Avenue, NW Washington, DC 20208-5651; tel. +1 202-219-1364; fax: +1 202-219-1728;
e-mail <gmalitz@inet.ed.gov>

There is NO registration fee, but space is limited so please send in your registration material as early as possible, but no later than February 7,1994.

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New Version of the THE ONLINE WORLD SHAREWARE BOOK

The Online World– a book about the practical use of the global online information resources–has been revised.

New material includes:

- Using gopher services by email (Gophermail)
- Using Internet's finger by email
- Using Internet's ping by email
- Online store with over 260,000 book titles.
- Online store offering over 80,000 CD records
- References to CCITT replaced by ITU-TSS. Revised ITU information.
- The Gale Directory of Databases
- China Import/Export news
- CitiBank Global Report
- Many new sources for music lovers
- The NewNIR-L mailing list.
- Majordomo
- MIME
- Added references to several Frequently Asked Questions files
- More on Internet "demos".
- More on RFCs
- More books.
- The Sierra Network is now The ImagiNation Network.
- URL (Universal Resource Locater), and HTTP.
- Irving Kind's Glossary of Computer Oriented Abbreviations and Acronyms
- The text has been reformated. Margins are now 1-76. Single-spaced text with double-spacing between paragraphs, and with full-block text rather than indentations at the beginning of paragraphs. Readers can now send their credit card number by PGP encrypted email when registering.

The book can be retrieved from various libraries on the Internet, CompuServe, and through other services. Internet-connected users can ftp to OAK.Oakland.Edu (141.210.10.117). The file is in the directory /pub/msdos/info Log on as user 'anonymous'. The file name is online13.zip (270KB).

A plain text version of the book can be retrieved by anonymous ftp from EUnet Norway at ftp.eunet.no as /pub/text/online.txt (663 KB+). A compressed version is in the file /pub/text/online.txt.Z .

For up-to-date information about how to get a copy of the book, send email to **<LISTSERV@vm1.nodak.edu>** containing the command: GET TOW WHERE

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The Financial Economics Network

The Financial Economics Network is creating a sublist titled AFA-EDUCATION-FINANCE which will discuss financial reform of K-12 and post-secondary education.

The Financial Economics Network is a network for scholars and related individuals in investment banks, banks, companies, government agencies, international agencies, and firms engaged in economic research related to finance and financial markets. There are currently over 1300 subscribers.

The list is restricted. For information on subscription please contact Professor Wayne Marr by sending an e-mail note to him at:
<marrm@clemson.clemson.edu>
tel. +1 803-656-0796; fax +1 803-653-5516

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The GLOBAL SCHOOLHOUSE PROJECT SEEKS INTERNATIONAL K-12 PARTICIPANTS

The Global Schoolhouse Project is looking for INTERNATIONAL K12 schools with the proper Internet connectivity to participate in the periodic CU-SeeMe Video-conference events and a desire to collaborate with U.S. students

The minimum requirements to do video-conferencing over the Internet are 56K (but, preferably T-1), a Mac or PC with a video board, a standard phone connection, a speakerphone, and a video camera.

If you are interested in participation please contact, Yvonne Marie Andres by sending an e-mail note to her at:

<andresyv@cerf.net>

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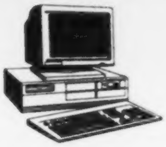
Getting the NII to School A Roadmap to Universal Participation

BBN researchers put together a 12 page paper called "Getting the NII to School". The paper, which suggests concrete goals and plans that can help achieve universal access to the NII for schools nationwide. It focused on a near-term agenda for 1993-1996.

The paper can be found on the gopher at <copernicus.bbn.com> in the National School Network Testbed directory.

Comments are welcome and she be sent to: Denis Newman, Bolt Beranek and Newman Inc. In San Diego: tel. +1 619-942-3734; fax +1 619-942-2181



The Instruction Corner:

Internet's "Killer Applications"— E-Mail Technology

by Tony Rutkowski <amr@isoc.org>
Vice-President, Internet Society Director of Technology Assessment, Sprint

(This is the last of a three-part series on 'Killer Applications.)

Over the past fifteen years, we've witnessed a wide variety of electronic mail services based on a wide variety of platforms, and provided by many different entities: public, government, and private. Today virtually all of them meet at the Internet. However, Internet based mail using a RFC822 format and the Simple Mail Transfer Protocol (SMTP) remains the most ubiquitous and heavily used in the world - 100 times greater than all other forms of wide area e-mail.

During the past couple of years, important adjuncts to Internet mail were developed. This includes techniques for seamlessly inserting virtually any kind of information into a message (pictures, software, graphics, Chinese characters, etc.) called MIME, for encrypting messages (PEM), for automatic distributed directory lookup (CSO), return receipts, and for client-server mail implementations (POP).

In a fashion surprisingly similar to the evolution of Mosaic, over the last year or so, all of these email capabilities began to be built into a single powerful, constantly evolving email client called Eudora. The software was developed by Steve Dorner at the University of Illinois, who started the effort in 1989, and made the code openly available on Internet -based servers. Dormer named the program after Eudora Welty, the author of the popular short story "Why I Live at the Post Office." In a kind of amazing continuing synergy among a broad base of users, a clever developer, and the Internet standards community, Eudora combined with client-server architectures have become "a new paradigm" is dealing with electronic mail.

Eudora has been continually evolved and refined and debugged with the latest version placed on a few key Internet software distribution servers EVERY WEEK across Mac and MS Windows platforms. Comments were solicited by the increasingly growing user base directly back to the developer. It now has an elegant graphic-oriented interface that allows users to instantly interact with POP servers across the Internet anywhere in the world, and to cope effectively with their increasing glut of electronic mail.

Recently, Dormer struck a deal with wireless radio innovator Qualcomm, Inc. of San Diego, California, which has funded an even more elegant commercial version of Eudora. Qualcomm has just begun to aggressively market and sell the product as a universal mass market open email product at a low price. The latest freeware version is still available for both Mac and Windows platforms on the server <ftp.qualcomm.com>.

Canada's SchoolNet Gopher

GOPHER

Canada's Carleton University has set up a wonderful gopher for educators around the globe. It's worth many trips to.

To get there follow the following map:

→ Other Gophers
  → North America
    → Carleton/University, Conservation Ecology/
      → Other Carlton gophers
        → 1. Main Carleton Gopher
          → 13. Schoolnet Gopher/

When you've arrived, here's the main menu.

-> 1. About Canada's SchoolNet.../
2. HELP.../
3. What's New to the Schoolnet Gopher.
4. Electronic Newstand.../
5. Kindergarten to Grade 6 Corner.../
6. Electronic Innovators.../
7. Travelling the Internet.../
8. Classroom & Academic Projects.../
9. Government Program Information.../
10. Scholarships & Grants.../
11. Career Centre.../
12. Resources and References.../
13. Special Abilities Area (under construction)/
14. Gopher du Reseau scolaire canadien.../
15. Canada's TechNet - A Prototype System.../
16. Alternative Assessment/
17. Directory.
18. Register_With_SchoolNet/

I suggest a look at Travelling the Internet and Electronic Innovators for some fun and adventure. Here's the introduction about Electronic Innovators:

ABOUT ELECTRONIC INNOVATORS

Welcome to the Electronic Innovators program. This program is designed to place students and teachers in touch with science, technology and engineering professionals in government, industry and academia. These professionals, who will be available to answer questions and give advice on matters related to their area of expertise, can also be valuable role models for students. We currently have over 400 Electronic Innovators on file, and that number will continue to grow. There are Electronic Innovators.from every corner of the globe, including Russia, Austrailia, Germany, Singapore, Japan and, of course, Canada. The areas of expertise of our Innovators are very diverse and exciting.

You can access the knowledge and expertise of these professionals through SchoolNet Newsgroups or by arranging for a School Advisor.

GORE ON NII *(Continued from page 3)*

And so I was pleased to hear that some companies participating in the communications revolution are now talking about voluntarily linking every classroom in their service areas to the NII.

Let me be clear. I challenge you, the people in this room, to connect all of our classrooms, all of our libraries, and all of our hospitals and clinics by the year 2000. We must do this to realize the full potential of information to educate, to save lives, provide access to health care and lower medical costs.

Our nation can and must meet this challenge. The best way to do so is by working together. Just as communications industries are moving to the unified information marketplace of the future, so must we move from the traditional adversarial relationship between business and government to a more productive relationship based on consensus. We must build a new model of public-private cooperation that, if properly pursued, can obviate many governmental mandates.

But make no mistake about it – one way or another, we will meet this goal.

As I announced last month, we will soon introduce a legislative package that aggressively confronts the most pressing telecommunications issues, and is based on five principles.

This Administration will:

- Encourage Private Investment
- Provide and Protect Competition
- Provide Open Access to the Network
- Take Action To Avoid Creating a Society of Information "Haves" and "Have Nots"
- Encourage Flexible and Responsive Governmental Action

Let me run through the highlights [of the White Paper] with you – and talk about how they grow out of our five principles.

We begin with two of our basic principles – the need for private investment and fair competition. The nation needs private investment to complete the construction of the National Information Infrastructure. And competition is the single most critical means of encouraging that private investment.

I referred earlier to the use of the telegraph in 1860, linking the nation together. Congress funded Samuel Morse's first demonstration of the telegraph in 1844. Morse then suggested that a national system be built with federal funding. But Congress said no, that private investment should build the information infrastructure. And that's what happened – to the great and continuing competitive advantage of this country.

Today, we must choose competition again and protect it against both suffocating regulation on the one hand and unfettered monopolies on the other.

To understand why competition is so important, let's recall what has happened since the breakup of AT&T ten years ago this month.

As recently as 1987, AT&T was still projecting that it would take until the year 2010 to convert 95% of its long distance network to digital technology. Then it became pressed by the competition. The result? AT&T made its network virtually 100% digital by the end of 1991. Meanwhile, over the last decade the price of interstate long distance service for the average residential customer declined over 50%.

Now it is time to take the next step. We must open the local telephone exchanges, those wires and switches that link homes and offices to the local telephone companies.

The pressure of competition will be great – and it will drive continuing advancements in technology, quality and cost. One businessman told me recently that he was accelerating his investment in new technology to avoid ending up as "roadkill" on the information superhighway.

To take one example of what competition means, cable companies, long distance companies, and electric utilities must be free to offer two-way communications and local telephone service. To accomplish this goal, our legislative package will establish a federal standard that permits entry to the local telephone markets. Moreover, the FCC will be authorized to reduce regulation for telecommunications carriers that lack market power.

We expect open competition to bring lower prices and better services. But let me be clear: We insist upon safeguards to ensure that new corporate freedoms will not be translated into sudden and unjustified rate increases for telephone consumers.

The advancement of competition will necessarily require more opportunity, as well, for the Regional Bell Operating Companies. Current restrictions on their operations are themselves the legacy of the break-up of AT&T and must be re-examined.

This Administration endorses the basic principles of the Brooks-Dingell bill, which proposes a framework for allowing long-distance and local telephone companies to compete against each other.

Regulation and review of this framework should be transferred from the courts to the Department of Justice and the Federal Communications Commission.

This process of change must be carefully calibrated. We must make, sure that the Regional Bells will not be able to use their present monopoly positions as unfair leverage into new lines of business. That is why the Administration supports the approach of the Brooks-Dingell provision that requires the approval of the Department of Justice and the Federal Communications Commission before the Regional Bells may provide interexchange services – most notably long distance.

In working with Congress, the Administration will explore the creation of incentives for the Regional Bells. We want to increase the transparency of those facility-based local services that raise concerns associated with cross-subsidization and abuses of monopoly power.

Our view of the entry of local telephone companies into cable television also balances the advantages of competition against the possibility of competitive abuse. We will continue to bar the acquisition of existing cable companies by telephone companies within their local service areas. We need this limitation to ensure that no single giant entity controls access to homes and offices. But to increase diversity and benefit consumers, we will permit telephone companies to provide video programming over new, open access systems.

Even these measures, however, may not eliminate all scarcity in the local loop – those information byways that provide the last electronic connection with homes and offices. For some time, in many places, there are likely to be only one or two broadband, interactive wires, probably owned by cable or telephone companies. In the long run, the local loop may contain a wider set of competitors offering a broad range of interactive services, including wireless, microwave and direct broadcast satellite.

But, for now, we cannot assume that competition in the local loop will end all of the accrued market power of past regulatory advantage and market domination.

We cannot permit the creation of information bottlenecks that adversely affect information providers who use the highways as a means of supplying their customers.

Nor can we can permit bottlenecks for information consumers who desire programming that may not be available through the wires that enter their homes or offices.

Preserving the free flow of information requires open access, our third basic principle.

How can you sell your ideas, your information, your programs, if an intermediary who is also your competitor has the means to unfairly block your access to customers? We can't subject the free flow of content to artificial constraints at the hands of either government regulators or would-be monopolists.

(See **GORE** *on page 10)*

GORE SPEECH (con't from page 9)

We must also guard against unreasonable technical obstacles. We know how to do this; we've seen this problem in our past. For example, when railroad tracks were different sizes, a passenger could not travel easily from a town served by one railroad to a town served by another. But the use of standardized tracks permitted the creation of a national system of rail transport.

Accordingly, our legislative package will contain provisions designed to ensure that each telephone carrier's networks will be readily accessible to other users. We will create an affirmative obligation to interconnect and to afford nondiscriminatory access to network facilities, services, functions and information. We must also explore the future of non-commercial broadcasting; there must be public access to the information superhighway.

These measures will preserve the future within the context of our present regulatory structures. But that is not enough. We must move towards a regulatory approach that encourages investment, promotes competition and secures open access. And one that is not just a patch-work quilt of old approaches, but an approach necessary to promote fair competition in the future.

We begin with a simple idea: Similar entities must be treated similarly. But let's be clear: our quest for equal treatment of competing entities will not blind us to the economic realities of the new information marketplace, where apparent similarities may mask important differences. A start-up local telephone company isn't the same as a Baby Bell.

What we favor is genuine regulatory symmetry. That means regulation must be based on the services that are offered and the ability to compete - and not on corporate identity, regulatory history or technological process. For example, our legislative package will grant the Federal Communications Commission the future authority, under appropriate conditions, to impose non-discriminatory access requirements on cable companies. As cable and telephone service become harder and harder to distinguish, this provision will help to ensure that labels derived from past regulatory structures are not translated into inadvertent,unfair competitive advantages.

As different services are grouped within a single corporate structure, we must ensure that these new, combined entities are not caught in a cross-fire of conflicting and duplicative regulatory burdens and standards. This Administration will not let existing regulatory structures impede or distort the evolution of the communications industry.

In the information marketplace of the future, we will obtain our goals of investment, competition and open access only if regulation matches the marketplace. That requires a flexible, adaptable regulatory regime that encourages the widespread provision of broadband, interactive digital services.

That is why the Administration proposes the creation of an alternative regulatory regime that is unified, as well as symmetrical. Our new regime would not be mandatory, but it would be available to providers of broadband, interactive services. Such companies could elect to be regulated under the current provisions of the Communications Act or under a new title, Title VII, that would harmonize those provisions in order to provide a single system of regulation. These "Title VII" companies would be able to avoid the danger of conflicting or duplicative regulatory burdens. But in return, they would provide their services and access to their facilities to others on a nondiscriminatory basis. The nation would thus be assured that these companies would provide open access to information providers and consumers and the benefits of competition, including lower prices and higher-quality services, to their customers.

This new method itself illustrates one of our five principles - that government itself must be flexible. Our proposals for symmetrical, and ultimately unified, regulation demonstrate how we will initiate governmental action that furthers our substantive principles but that adapts, and disappears, as the need for governmental intervention changes - or ends. They demonstrate, as well, the new relationship of which I spoke earlier - the private and public sectors working together to fulfill our common goals.

The principles that I have described thus far will build on open and free information marketplace. They will lower prices, stimulate demand and expand access to the National Information Infrastructure.

They will, in other words, help to attain our final basic principle - avoiding a society of information "haves" separate from a society of information "have nots".

There was a Washington Post headline last month: "Will the 'Information Superhighway' Detour the Poor?"

Not if I have anything to do about it. After all, governmental action to ensure universal service has been part of American history since the days of Ben Franklin's Post Office. We will have in our legislative package a strong mandate to ensure universal service in the future - and I want to explain why.

We have become an information-rich society. Almost 100% of households have radio and television, and about 94% have telephone service. Three-quarters of households contain a VCR, about 60% have cable, and roughly 30% of households have personal computers.

As the information infrastructure expands in breadth and depth, so too will our understanding of the services that are deemed essential. This is not a matter of guaranteeing the right to play video-games. It is a matter of guaranteeing access to essential services.

We cannot tolerate - nor in the long run can this nation afford - a society in which some children become fully educated and others do not; in which some adults have access to training and lifetime education, and others do not.

Nor can we permit geographic location to determine whether the information highway passes by your door. I've often spoken about my vision of a schoolchild in my home town of Carthage, Tennessee being able to come home, turn on her computer and plug into the Library of Congress. Carthage is a small town. Its population is only about 2,000. So let me emphasize the point: We must work to ensure that no geographic region of the United States, rural or urban, is left without access to broadband, interactive service. Yes, we support opening the local telephone exchange to competition. But we will not permit the dismantling of our present national networks.

All this won't be easy. It is critically important, therefore, that all carriers must be obliged to contribute, on an equitable and competitively neutral basis, to the preservation and advancement of universal service.

The responsibility to design specific measures to achieve these aims will be delegated to the Federal Communications Commission. But they will be required to do so. Our basic goal is simple: There will be universal service; that definition will evolve as technology and the infrastructure advance; and the FCC will get the job done.

Reforming our communications laws is only one element of the Administration's NII agenda. We'll be working hard to invest in critical NII technologies. We'll promote applications of the NII in areas such as scientific research, energy efficiency and advanced manufacturing. We'll work to deliver government services more efficiently. We'll also update our policies to make sure that privacy and copyright are protected in the networked world.

As we enter this new millennium, we are learning a new language. It will be the lingua franca of the new age. It is made up of ones and zeros and bits and bytes. But as we master it ... as we bring the digital revolution into our homes and schools ... we will be able to communicate ideas, and information — with an ease never before thought possible.

The future really is in our hands.

The Digital Calendar

February 1994

8-11 February **TCEA'94 Kids and Technology**; Austin Convention Center, Austin, Texas. Over 200 hands-on workshops, activity sessions, informative concurrent sessions and general sessions. An Exhibits area of over 175 booths will showcase exhibitors demonstrated a wide array of state-of-the-art technology for education. Pre-registration deadline is January 15. For additional information, call 1-800-282-TCEA (rknight@tenet.edu) and ask for TCEA Conference Info.

16-20 February **AECT Annual Convention and InCite'94** Exposition. Nashiville, Tennessee. Choose from over 300 seminars, special events, workshops, and new technology program tracks. Pre-registration deadline is January 14, 1994. For additional information, call +1-202-347-7834 or send a fax to +1-202-437-7839

March 1994

6-8 Mar. **SYMPOSIUM ON APPLIED COMPUTING (SAC'94) SPECIAL TRACK ON COMPUTER APPLICATIONS IN EDUCATION** Phoenix Civic Plaza, Phoenix, Arizona. For general inquiries please contact the conference director, Ed Deaton, at: Dept.of Mathematical Sciences, San Diego State University, San Diego, CA 92182. e-mail:<deaton@cs.sdsu.edu> ;tel: +1-619-594-5962; fax: +1-619-594-6746

16-19 Mar- **STATE 94 (SOCIETY FOR TECHNOLOGY AND TEACHER EDUCATION)** – Fifth Annual Meeting; Washington, D.C. This year's theme is "Methods and Models for the 90s." For information contact: STATE 94, AACE, P.O. Box 2966 Charlottesville, VA 22902 USA e-mail: <AACE@virginia.edu>; tel +1-804-973-3987; fax: +1-804-978-7449

April 1994

4-8 Apr. **AERA (ENETSIG) Meeting in New Orleans Conference Theme: Aternative Learning Environments: Work, School, Play.** For AERA E-NET SIG: Contact Daniel Blaine, University of Hawaii at Manoa, USA . E-mail to <daniel@uhunix.uhcc.Hawaii.Edu> <daniel@uhunix.bitnet >

7-10 Apr **The New Learning Environment: Serving Diversity Through Technology** in Albuquerque, New Mexico. Sponsored by the National Edution Association (NEA) and the Rocky Mountain Associaion for Technology in Education (RMATE). Inquires to: Libby Black, Director, Boulder Valley Internet Project Boulder Valley Public Schools & The University of Colorado at Boulder. e-mail: <black@bvsd.k12.co.us> ; tel: +1 303- 447-5090; fax: +1 303- 447-5024

14-16 Apr **NCCE 23rd Annual Conference,** Spokane Center, Spokane, Washington. The Northwest Council for Computer Education invites educators and school administrators to come see the latest hardware, software, technical publications, and related equipment in the academic environment. For information, write to NCCE'94, 1277 University of Oregon, Eugene, OR 97403-1277 USA

17-18 Apr **Fifth Annual Activating Children Through Technology (ACTT)** Conference; Macomb, IL; ACTT V, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; tel. +1 309-298-1634 (Joyce).

17-19 Apr **Educational Technology Institute, "The Road Map to School Improvement"**; Albuquerque, NM; NM State Department of Education, Celia Einhorn, Technology and Training, 10580 S. Hwy 14, Tijeras, NM 87059; tel. +1 505-281-1122; fax +1 505-256-1122; fax 505/256-4452; e-mail: <einhorn@apsicc.aps.edu>

18-24 Apr **Eighth International Conference of the European Schools Project, "Connecting the World"**; Amsterdam, The Netherlands; Pauline Meijer, Universiteit van Amsterdam, Grote Bickersstraat 72, 1013 KS Amsterdam, The Netherlands; tel. +1 31-20-5251248; fax +1 31-20-525-1211; E-mail: pauline@esp.educ.uva.nl.

27-30 Technology and Innovations In Education (TIE) Eighth Regional Technology Conference; Sioux Falls, SD; TIE '94, 1925 Plaza Blvd., Rapid City, SD 57702-9357; ph. 605/394-1876; fax 605/394-5315.

27-30 Apr **Eleventh International Conference on Technology and Education, "Deciding our Future: Technological Imperatives for Education";** London, England; Tom Sechrest, Conference Coordinator, The 11th Interna-tional Conference for Technology in Education, University of Texas in Austin, P.O.. Box AA, Austin, TX 78713 USA; tel. +1 512-471-4080; fax +1 512-471-8786.

27-29 Apr. **The Distance Education Research Conference** presented by Texas A & M University and St. Philip's College in San Antonio, Texas. Inquiries to: Dr. Karen Murphy, Conference Chair, Educational HRD, Texas A & M University, College Station, Texas 77843-3256; tel: +1 409-845-3016; fax: +1 409-845-0409

29-30 Apr **Virginia Society for Technology in Education (VSTE) Annual Conference**; Wintergreen, VA; Dr. Daniel Arkin, Executive Director, Virginia Society for Technology in Education, University of Virginia, Curry School of Education, 405 Emmet Street, 287 Ruffner Hall, Charlottesville, VA 22903; tel. +1 804-320-3424; e-mail: <vste@virginia.edu>

May 1994

11-14 May. **CADE'94 CONFERENCE: Distance! Quelle Distance?** The 1994 conference of the Canadian Association for Distance Education will be held in Vancouver, B.C., Canada. Inquiries about the conference can be directed to CADE '94, Centre for Distance Education, Simon Fraser University, Burnaby V5A 1S6 BC., Canada; tel +1-604-291-3524; fax+1-604-291-4964; e-mail: <Heather_Persons@sfu.ca>

Projects *(continued from p 6)*

conducted telecommunications projects. It has not been restricted to the older children however, as Kindergarten, year 1and year 2 were very quick to take up using e-mail to communicate with teachers and classes in the US.

Within 3 weeks of setting up the Internet connection, 7 classes from WHPS were communicating with 9 classrooms in the US. Some very interesting projects have arisen from this class to class contact, and it is noted that every class has approached this contact slightly differently.

Ms Natalie Wise's class, 5W, was awarded the Keep Australia Beautiful Schools Environment Award in November 1993, and they were able to share their success with a classroom in Georgetown, Washington DC. The fifth grade class at Georgetown Day School, interviewed 5W about their work and wrote an article for their school newspaper. Year 5W has also sent out onto the network some of the songs and poems that they have written about their environmental work.

Mr Stewart Clarke's class, 5C, is communicating with a school located on Long Island, New York and a school in Florida in a three way communication (the class in Long Island had been previously communicating with the Florida class and introduced them to our Australian class). The project work undertaken by this class includes collaborative authorship, where 5C has written stories for the Long Island class to complete. They have produced some great stories and in the process exchanged some interesting information about our two cultures. The Long Island class has been studying Australia and they have written some very thoroughly re-searched questions about Australia for 5C to answer. One very nteresting project 5C has embarked on is the exchanging of recipes with a local flavour.

Our three year 2 classes, (Mr John Duncan's 2D, Ms Jenny Gowen's 2G and Ms Cheryl Patrick's 2/3P) are communicating with three classes in the US located in Long Island, Washington DC and Michigan. Some of the year 2 and year 3 students have researched how they will spend Christmas Day and the Summer holidays here in Australia to send to all three US schools.

Ms Jan Herold and her year 1 class have started to communicate with Tampa, Florida.

Ms Greer Lyons, teacher of Kindergarten, is about to start communication with Washington DC to exchange information about what she is doing with her class.

Ms Joan Davies, year 6D, has made contact with the NASA scientists workingin the Antarctic. The NASA Live From...Other Worlds news feed provides us with weekly bulletins from the Antarctic base station at McMurdo Sound. Year 6D has made contact with one of the scientists involved and has sent questions to the Antarctic. Year 6D is also communicating with a class at Sutton's Bay, Michigan and with a class in Grand Forks, British Columbia.

The Kidsphere mailing list provides many ideas for projects. The most recent of which (December 1993) is for children to send an e-mail message to Santa at Santa@North.Pole.Org ! The Elves firstly requested that the students write messages with a local flavour for inclusion into Santa's database.

Project Plans for 1994

There are many projects available over the Internet for the K-6 environment. Some are provided free of charge, such as the Maths Puzzler and the many projects available through Kidlink. Many ideas for projects arise out of class to class contact and these are perhaps the most beneficial as they are of direct interest to both the classes and teachers involved.

One such project that has arisen from class to class contact is that of sending QuickTime video across the network as a video-gram. Plans have been made to send QuickTime video of a science experiment to a school in Michigan.

There are also projects available by subscription where the subscription costs cover the costs of assembling and dissemination of additional supportive material. For 1994 WHPS has enrolled in two such projects administered by UST World School. The first is called The International Arctic Adventure, where the class will follow a team of adventurers as they explore the Arctic region by dog sled. The second project is called the Friends of the Bears where the students will follow some fellow students as they discover information about the last six bears living in the Pyrenees.

(In the next issue of NetTEACH, Michele and Geoff discuss the impact of the Global Schoolhouse Project on Wanniassa Hills Primary School's networking plan, and how to support networking in the school environment.)

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages*.

NetTEACH NEWS is published ten times a year.

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NetTEACH NEWS

Volume 1, No. 9 The Newsletter for K-12 Networking Educators February 1994

Changing the Political Economy of Education

by Kathy Rutkowski <kmr@chaos.com>

We need to raise the standards to essentially reinvent our educational system to fit this new economy. We've got to get away from what I have called over and over again a tyranny of low expectations, believing that young people can get by with just a minimum of learning and get them better prepared for the world out there that they're going to face. (Richard Riley, Secretary of State)

We hear a great deal about the 'failure' of the US public education system and the need for systemic reform.

Parents are quick to blame new educational programs and incompetent educators. Educators are quick to blame selfish and indolent parents, inadequate resources, low salaries, and pedagogical theory that doesn't work in practice. Politicians in their skillful manner blame such things as the 'tyranny of low expectations'.

It's almost as though we believe that education exists in some sort of vacuum apart from society—THAT PERHAPS IS THE PROBLEM. The Industrial Age School was designed to be an island and a place of temporary refuge. Isolation was promoted and institutionalized.

Immigrant parents were discouraged from playing an active role in the education of their children because they either spoke in a foreign language or were considered unskilled and ignorant. K12 teachers for the most part were trained to be caretakers and to instruct mainstream culture. They were asked to instill American values and to instruct American history, folklore, and laws. The ABCs of the Industrial Age were reading, writing, and arithmetic, and the acquisition of "trades" and "skills" that involved mechanical machines like looms and lathes. The "how to" approach to education that in the Pioneer school involved sitting with older women of the town quilting, or working in the fields with the men of the house were formalized and institutionalized.

School became the place of "education" and home a place to "play" or face the harsh "realities" and demands of childhood in the homes of struggling immigrant families. Teachers became further estranged from the community and less able to draw upon the community as an active resource in the education process.

Walls were constructed to keep the community out and education within. The "community" one room schoolhouse became a district multi room school factory. The managers of the school factory (superintendents and principals) had ultimate power over their employers and controlled the internal and external communications.

Teachers, who in pioneer schools bought wood as well as books, were asked to follow a proscribed curriculum and even time schedule.

The barriers between higher education and K-12 also grew higher as the education industry like all other industrial age industries sought to specialize and carve out competitive advantages. Within higher education disciplines flourished and multidisplinary study was considered somehow less important or serious.

The launch of the Russian satellite called SPUTNIK marked a significant

(Continued on next page)

A Glimpse Inside:

Creating the On-Line Classroom 3
This is part II of Michele Huston and Geoff Huston's description of the Wanniassa Primary School networking program, and the resources they, the teachers, and students found useful.

Building a Global Informatory 4
The Global Schoolhouse Project is nearing its first anniversay and leading the way in showing the potential power of the Internet to revolutionize the way we teach, learn, and manage education.

What's New in Gophers 5
How about spending a day at the S.F. Exploratorium?

InfoBytes 6
WhaleNet is a teacher enhancement project funded by NSF—check it out. There's a new discussion listing for preservice and student teachers online and a new discussion listing for educators in private schools.

MOSAICS For K12 8
The proliferation of quality WWW servers for MOSAIC client software is remarkable. For those of you who do not yet have PPP, SLIP, or other TCP/IP connectivity, dial-up access is becoming widely available this year at reasonable prices. (The next issue NTN will address the later issue) We bring you 6 new servers that you will want to navigate to as well as send your students to. ENJOY the view—it is IMPRESSIVE!

The Digital Calendar 11
Still a few weeks before spring, but conferences and workshops are"springing" up all over the country. NTN will be at STATE'94 to cover.

Making Magic With Math 14
Alan Hodsen describes his highly successful Math Magic Project. Good Job, Alan!

News from Washington 15
The IITF Committee Reports.

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turning point. In an effort to "catch up" with the Russians, we instituted changes to encourage scientists and mathematicians to join the teaching profession so that America could produce the future generations of scientists and mathematicians that could send a man to the moon and beyond.

Some significant changes occurred in the American education system in this Post-SPUTNIK, Pre-INTERNET period. The teaching profession gained a new sense of professionalism. Students enjoyed greater intellectual freedoms than previously.

However, isolation continued. The communication system remained largely a closed system with very little opportunity for teachers and their students to interact and collaborate with those outside the "school" or indeed "classroom".

The emergence of the INTERNET and the merging of advanced multimedia, telecommunications and communications technologies offers education the means to overcome isolation and rejoin the world.

The Internet can truly revolutionize our schools and ironically can allow us to restore the new pioneer school—The One Globe Schoolhouse.

Networks are already supporting reallocations of power and providing the communication linkages that can effectively create communities of learning where resources can be shared and the opportunities for Constructionist learning experiences augmented.

Networking parents are increasingly taking a more active role andinterest in the education of their children. Networks allow them to communicate more easily with teachers and other parents and educational experts around the world. They are increasingly working with schools, communities, and States to promoting networking plans.

Managers in education who use networks generally have a more open managerial style that encourages practitioners and parents to participate in critical decisions. Site-based management certainly existed before networks but with networks is much more effective.

Networks are fundamentally changing the cultures of learning, teaching, and managing educational resources.

The Global Schoolhouse Project that will be discussed in this issue embodies these changes. The architects of this Project are trailblazers not just in the use of networking in education but in the creation of information age educational environments.

Teachers who participate in this project approach their profession from a different perspective than most non-networking teachers. They are foremost mentors and innovators.

Students who participate in this project are excited and eager to construct their own learning environments. They are not content to be passive learners but anxious to be active learners and contributers to society. The day I interviewed Yvonne Andres for the article, her middle school students in California were putting information into a gopher server located in North Carolina.

The managers of this project are educators who understand that education is a knowledge industry that has significant value to the national and global economy. They understand the need for collaboratve partnerships with government and higher education, and the need to optimize the use of resources, particularly information resources and new technologies. They seek to end isolation and open communications.

Our schools can no longer be islands but must be integrated into the global community. The most important survival skills of the Information Age are curiosity and the ability to communicate. We must nurture creativity and adaptability, encourage independent learners, encourage teachers and learners to be risk-takers, and promote collaboration and cooperation.

Answering questions was never as important as asking them, and through time man was only limited in his quest for knowledge by the constraints on his ability to ask.

Networks allow all men an opportunity to ask both the collective intelligence of mankind and to some degree the Universal Intelligence critical questions.

Change through networking is happening in isolated schools and districts but this change must be supported and the isolated prairie fires must be be carried by societal winds and demands for universal change.

Let us challenge Secretary Riley and all the established Educational leadership in Washington and around the globe to help nurture the fires of change that are required to bring about an end of isolation, restore professionalism to educators, tear down the walls that divide the schools from the community, and empower learners to construct their own learning environments with mentor teachers from around the world.

Networking technology offers a proven means to achieve the kinds of results that we need. It is not the end in itself but a means. It is an enabling technology.

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Unsolicited submissions are welcome and should be sent to the Editor at:
<kmr@chaos.com>

CREATING THE ON-LINE CLASSROOM

by Michele Huston and Geoff Huston (Part II)

The Global Schoolhouse as a Catalyst

In March 1993, we (the authors) became aware of the Global Schoolhouse Pro-ject. This project uses the capabilities of personal computers and the Internet to construct a virtual classroom around the world, with each location linked in via a video and audio patch.

After receiving an enthusiastic response from the Head Master of WHPS, Mr Owen Savage, and the staff, efforts were made to gain a school Internet connection. At the same time our interest was expressed to the National Science Foundation (NSF) in America for inclusion into the 93/94 Global Schoolhouse Project and the school was subsequently accepted for inclusion in the 93/94 Global Schoolhouse Project.

The Australian National University and the Australian Academic and Research Network (the national Internet provider) were approached to support us in a connection that would allow WHPS access to the full range of Internet services. We received generous support from both areas, and on the 8th November 1993 WHPS posted its first electronic message to Washington DC from the school's own Internet connection.

From this time, this technology has received enthusiastic support from the staff, students and the local school community, and within 30 days the number of messages to and from the school grew to over 50 a day.

Hardware

Cost has always been a consideration when planning this project. To date the school has spent no additional money on computer hardware, as we have been able to use existing resources to support the Internet connection. Access to the Internet (via AARNet) has been achieved via one of the school's three Apple Macintosh LCIII computers which has been connected to a modem which uses a phone call to establish the network connection.

To support the higher bandwidth requirements of video transmission the school intends to use a 64K ISDN channel in the near future. In addition Macintosh systems with video capability will be required.

Software

The most important consideration in selecting software for this project was user friendliness and reliability.

Most of the teachers at WHPS have had only very limited exposure to computers in the past. It was recognized that the teachers and students would only take up this technology if the computer tools were readily useable. The Internet access software available freely over the Internet was found to be more than adequate for this purpose.

MacTCP and InterSlip are used to support the Internet connection. MacTCP is licensed software, used to provide Internet protocol support on the Macintosh system. InterSlip is freely available, and allows the Macintosh to make a network TCP link over a dial-up modem connection. All other network software modules noted here require MacTCP to support their communications requirements. InterSlip has adequate scripting facilities to allow the connection via the modem to be established with a single mouse click, and can also operate in a fully automatic mode where the dial-up connection is established whenever an application needs to send Internet data.

Eudora is an e-mail package with a very easy to use Macintosh type interface. Eudora has proved to be extremely successful. Teachers have become competent users quickly and with mini-mal instruction. Eudora operates in an on-line / off-line mode. Messages can be composed using any of the school's Macintosh systems, and a batch of such messages can be sent outward on the Internet in a single dial-up session.

Turbo Gopher is a gopher user agent with a Macintosh-style graphic interface. The gopher world is one of information sources, organized using a web of references which span the network. Users can retrieve information (text, pictures, sounds, etc) by following through a sequence of menu choices, or can pose specific information queries to a gopher query server (or in gopher language a veronica). The gopher world encompasses many thousands of

(Continued on page 11)

NETPROJECT PROFILE: The Global Schoolhouse Project–Lighting Fires Around the World

By Kathy Rutkowski

(Almost a year a ago, in the April/May 1993 issue, we first profiled The Global Schoolhouse Project. In that year, the Project has further evolved and the global interest has grown significantly. Clearly, The Global Schoolhouse Project has established itself and is now allowing students, teachers, and parents to live the future. In this article, we revisit the Global Schoolhouse Project)

The Global Schoolhouse Project was launched in the spring of 1993. In the beginning, four 5th through 8th grade classrooms collaboratively conducted research on the environment. These classrooms were located in California, Tennessee, Virginia and London. The students read Vice President Gore's, "Earth in the Balance: Ecology and the Human Spirit" (Houghton Mifflin, 1992). Along with their reading, the students investigated the problems caused by water pollution run-off and designed a public awareness program for their own communities that could be replicated in other communities around the world. Throughout the project, the classrooms interacted with each other through the use of FrEdMail and the Internet and the four schools participated in a special video teleconference over the Internet using the Cornell CU-SEEMe software for the Apple Macintosh that the Vice President attended.

There are now seventeen schools from 3rd through 12th grades participating. These schools are located in eleven states including California, Tennessee, Virginia, Iowa, Missouri, New York, Illinois, North Carolina, Nebraska, Utah, and Vermont. Several international schools located in Australia, France, Canada, Germany, Japan, Great Britain, Mexico, and New Zealand are expected to participate. The schools are grouped in clusters of four or five according to grade level or topic of study. There are five units of study planned — space, energy, waste management, disaster, and pollution/watershed. An Online science and environmental fair and special guest interviews are to be held.

Currently, children involved with the project and their teachers are using advanced Internet tools such as CU-SEE ME, gopher, mosaic, and the guide. Middle school students are undergoing training so that they can put information into the Global Schoolhouse Gopher that is located at the Clearinghouse for Networked Information Discovery and Retrieval in North Carolina.

Both teachers and children are receiving hands-on training. Teachers and principals receive technical training on using Internet tools in the classrooms as well as guidance on developing implementation strategies. Training occurs in formal workshops as well as informally via telementoring with the GSH staff and teachers already trained and working on the Project.

Yvonne Marie Andres, one of the architects of the Global Schoolhouse Project and the President of the Global SchoolNet Foundation, spoke recently about some of the Project goals. A major goal is to broaden participation so that there is a minimum of 1 school in every state and a significant international representation. These schools will become the sites of state of the art school Internet usage centers and models for the US and world. The ultimate vision is to build a global network of schools that utilize these vast global networks to collaborate together in meaningful learning experiences, share resources, and access a global electronic library and a global informatory.

It is interesting that Yvonne Andres herself came to education after obtaining a B.S. degree in Industrial Psychology. (This background is most evident in the excellent training component found in this project.) She spent over twelve years working with Chapter 1 students and discovered technology as a way to reach these children. Yvonne, now irrefutably one of the pioneers in educational networking, is convinced that advanced networking capabilities that support real-time interactions between students in remote sites will work learning magic with children of all learning styles and their teachers and parents. The information is "much more real and spontaneous things happen" that make the experience more meaningful and support genuine Constructionist learning.

The Global Schoolhouse Project teaches teachers, students, and parents how to build their own meaningful learning environments and how to use the vast and rich information resources of the globe that are for the most part freely available via the Internet. Unlike other technology projects that have come and gone, the Global Schoolhouse Project has high expectations for itself and its participants and so far both have performed superbly. It is an exciting project that is helping to light many a prairie fire around the world.

For more information about the Global Schoolhouse Project or the Global SchoolNet Foundation contact:

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Carlsbard, CA 92009 USA
+1 619 931-5934
Internet: andresyv@cerf.net

GOPHER

DALLAS MUSEUM OF ART ANNOUNCES INTERNET PUBLIC ACCESS SERVICE

The Dallas Museum of Art Collections Information Center is pleased to announce that Museum information and digital images of the Permanent Collection can be obtained through the University of North Texas gopher server (gopher.unt.edu).

Visitors to the 'online Museum' have access to general DMA information, such as exhibition and event schedules, gallery guides, and educational documents relating to the Museum and its Permanent Collection. One can also pick up a copy of a new DMA electronic newsletter, 'CI,' which details the activities and services of the Museum's new Collections Information Center.

A selection of digital images from the Museum's Permanent Collection is also available in GIF89a format. Each image file includes not only a picture of an artwork, but also a full text identification label and in many cases extended remarks about the piece written by our Curatorial staff. Visitors are welcome to download these images for their personal, educational use. Shareware image viewers are also provided for our patrons' use.

Visitors are also encouraged to post art-related reference questions to our gopher mailbox, 'dma@gopher.unt.edu.' An information center staffperson will be available to answer e-mail queries daily.

The DMA online service can be accessed on the gopher server at the University of North Texas (gopher.unt.edu). At present, the easiest way to access the server is to login to a local gopher or host access system near you, and then select the menu option(s) that connect you directly to other gophers in the USA.

Information on the Rural Datafication project on-line, is found using Gopher and the World Wide Web.

Via Gopher: gopher.cic.net
CICNet Projects and Gopher Servers
Rural Datafication Project

Via WWW: hhtp://www.cic.net/

Currently on-line:
* Project summary and status report
* Conference announcement/call for participation
* Project documentation plan
* Project goals and components

Soon to be on-line:
* Project plan

Announcements and other noteworthy news will be posted to the mailing list, ruraldata-info@cic.net. In the interest of conserving network bandwidth, however, we will no longer mail longer items except by special request (for instance, if you have access only to e-mail). If you would like a file mailed to you, please send your request to <ruraldata-info-request@cic.net>.

EXPLORATORIUM ... NEW WWW SITE

The Uniform Resource Locator (URL) for this document is:
http://www.exploratorium.edu/

The Exploratorium is a museum of science, art, and human perception with over 650 interactive "hands on" exhibits. Each year more than 660,000 visitors come to the Exploratorium, over 67,000 children come on field trips, and more than 500 teachers are trained here.

The Exploratorium is located in the Palace Of Fine Arts in the Marina district of San Francisco.

If you have any comments/suggestions for the documents on this server, send e-mail to ronh@exploratorium.edu.

CICNet Announces New K-12 Gopher

CICNet, Inc. —a provider of Internet connectivity and services to education and research, non-profit and commercial organizations—has established a new Gopher server designed especially for K-12 teachers. today by CICNet, Inc. The Gopher server includes both descriptions of and on-line links to select Internet resources of interest to educators.

Descriptions, many written by teachers, include summaries of the writer's experience with each resource, Internet addresses, login and logout procedures, and often a sample session. Links provide a direct connection to many of the resources described in the Gopher. To help educators incorporate Internet resources into their lesson plans, the server also includes summaries of several "Internet in the classroom" projects.

To connect to the CICNet K-12 Gopher, point your Gopher client at gopher.cic.net and select the "CICNet Projects and Gopher Servers" menu. To navigate there–
Other Gopher Servers/
  North America/
    USA/
      Michigan/
        CICNET Gopher

The "K-12 on the Internet" Gopher server was designed by a doctoral student of education at West Virginia University and is maintained by CICNet staff.

INFOBYTES

ANNOUNCING ISED-L

ISED-L, the Independent School Educators List, is an new, unmoderated discussion group serving as a forum for the distinctive needs and interests of the indepen-dent school community around the world. ISED-L is a vehicle for faculty, staff, and administrators to share ideas, to seek advice, to establish new friendships, to locate collaborators for online and offline projects, and to post conference and other announcements.

New subscribers are welcome. To join the group, send a message to:

ISED-L-REQUEST@adler.mec.mass.edu

In the body of the message, type:

SUBSCRIBE ISED-L YourFirstName YourLastName

You will receive a welcome message with instructions on how to post to the list.

ISED-L runs on PMDF Mailserv v4.2 software on a vax/vms system at the Merrimack Education Center in Chelmsford MA.

Managers of the list are:
Marti Weston
K-8 Computer Coordinator
Georgetown Day School
4530 MacArthur Blvd., N.W.
Washington DC 20007
mweston@umd5.umd.edu
Ellen Berne
Library Director
The Winsor School
Pilgrim Road
Boston MA 02215
eberne@a1.mec.mass.edu

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PreSTO (Preservice and Student Teachers Online) Discussion List

The Mississippi State University's College of Education has established the PreSTO discussion list as a forum for preservice and student teachers around the world. Faculty members are welcomed, but are reminded that this is a "student" list; comments, therefore, should be withheld by faculty unless students need assistance.

PreSTO is an unmoderated LIST.

To subscribe to the PreSTO list, send an e-mail message to:

LISTPROC@RA.MSSTATE.EDU

Leave the subject line blank and use the following message:

Subscribe PRESTO <Your Name, Affiliation>

Send mail that you want posted to:

PRESTO@RA.MSSTATE.EDU

The PreSTO list administrator is:
Dr. Larry S. Anderson, Asst. Professor
Technology and Education Department
and Director, Instructional Technology,
College of Education,Mississippi State
University, Mississippi State, MS 39762
e-mail: LSA1@Ra.MsState.Edu
tel: +1 601- 325-2281
fax: +1601- 325-7599

❖ ❖ ❖

WhaleNet

WhaleNet, in conjunction with the Whale Conservation Institute (WCI) and whale watch companies, is developing a program to enhance the educational use of whale watches.

WhaleNet offers curriculum support and a source of data for interdisciplinary classroom activities , and interactive informational support for students through the EnviroNet bulletin boards utilizing telecommunications.

WhaleNet is setting up a system where students, teachers, and WCI will collect data on their whale watches and compile their data on the WhaleNet / Marine bulletin board. The data will then ared, via WhaleNet, by the participating schools for student research and interdisciplinary curricular activities in their respec-tive classrooms.

WhaleNet is establishing Internet communication between classes on the East coast with corresponding classes on the West coast so that students can com-pare and relate their experiences, data, and knowledge with one another.

WhaleNet, part of EnviroNet, is a teacher enhancement project funded by the National Science Foundation and sponsored by Simmons College in Boston. The purpose of the EnviroNet is to enhance environmental science education in New England through the use of telecommuncations.

Class work may be supplemented with information packets supplied by En-viroNet, interactive CD-Rom and curriculum materials and the Elementary Whale Study Curriculum (EWSC) developed by Whale Conservation Institute and the Discovery Channel, and the booklets Whale Watches as Interdisciplinary Opportunities, The World of Whales, Dolphins, and Porpoises – Interdisciplinary Curriculum Activities for Pre-K through High School, and Marine Science Activities on a Budget. Plans that enable a class to build a life-sized (55 ft.) inflatable whale that the students can actually walk through are also available through WhaleNet. WhaleNet curricula support continues through the winter months by utilizing information from the humpback southern breeareas, WCI Patagonia right whale research and ocean toxics (ECOTOX), and bioacoustics sup-plied by the voyages of the WCI research vessel Odyssey.

If you are interested in receiving an information packet, participating in the program, or learning more you can contact co-directors Dr. Karen Talentino or Paul Colombo, Environet, Park Science Bldg., Simmons College, 300 Fenway, Boston, MA 02115 or me, Michael Williamson, WhaleNet at 508/468-4699 or 617/734-5200, X256.

Send E-Mail to:
Dr. Karen Talentino
(KTALENTINO@VMSVAX.SIMMONS.EDU)
Paul Colombo
(PCOLOMBO@VMSVAX.SIMMONS.EDU)
Michale Williamson
(MWILLIAMSON@VMSVAX.SIMMONS.EDU)

INFOBYTES

The CLASSROOM EARTH BBS

Funded with a grant from NASA, Classroom Earth is a free online information resource for educators and students (K-Adult) interested in global environmental change education. Content will come from agencies and institutions as well as working educators.

The BBS carries lesson plans and resource materials created by educators, electronic-mail message conferences on environmental and educational issues from Internet Newsgroups, K12Net, and others and provides "group labs" where classrooms all over the world can work together on environmentally-oriented exercises.

Input during the final development phase is welcomed. .

To Connect to Classroom Earth BBS
With any PC and modem: Dial (517) 797-2737

From an Internet Connection: Telnet classroom_earth.ciesin.org_2010

Please note a specific port is used in the address. Depending on your communications software, there may be a port field for you to fill out, or you may need to type it as above with a space between the address and the port number.

Training Residents of the Global Village: The InterNIC Seminar Series

InterNIC Information Services (InterNIC IS) announces the availability of a series of seminars covering a range of topics for new, intermediate and advanced Internet users. This announcement describes the seminar content, as well as the dates, locations, and instructors for seminars being held throughout the United States in the coming months.

Contact InterNIC IS for more information on each of these seminars, including registration procedures and pricing information:
email: seminars@internic.net
gopher: is.internic.net
FTP: is.internic.net
tel: 800-444-4345 or 619-455-4600

Descriptions:

Hello Internet! Tools for the Classroom.

Hello Internet is designed specifically to meet the needs of educators and administrators at all levels. This seminar will introduce the Internet and demonstrate its relevance to the classroom. The course will explore many electronic information resources, including: email, conferences, forums, Usenet newsgroups, databases, online research tools and strategies, collaborative classroom projects, and much more! Specific tools will include archie, gopher, NCSA Mosaic, and live video over the network via CU-SeeMe. Hello Internet is also available as a six-week course which includes ongoing online instruction. In this extended version, university credit is available.

Date: February 24, 1994, morning
Instructor: Yvonne Andres, Global SchoolNet Foundation
Location: San Diego, California

Making and Managing Global Learning Projects.

The global village has enormous potential to enhance our instruction programs. We have visions of students excitedly engaged in learning projects with students around the world. Unfortunately, many ideas for online learning projects languish because teachers lack the skills to effectively organize and conduct projects in the Internet environment. This seminar will give educators many practical skills strategies, as well as examples for making, marketing, and managing their own collaborative learning project ideas. At the end of the workshop participants will have their own project ready to post on the Internet. They will also possess the skills needed to make the project a success.

Date: February 24, 1994, afternoon
Instructor: Al Rogers, Global SchoolNet Foundation
Location: San Diego, California

There are several other courses being offered. For an up-to-the-minute seminar schedule, FTP or gopher to is.internic.net, or send mail to seminars@internic.net.

If your organization is interested in hosting one or more of the. InterNIC Seminar Series, send your query to seminars@internic.net or call 800-444-4345 or 619-445-4600.

Release of NCSA Mosaic for Microsoft Windows Version 2.0alpha1.

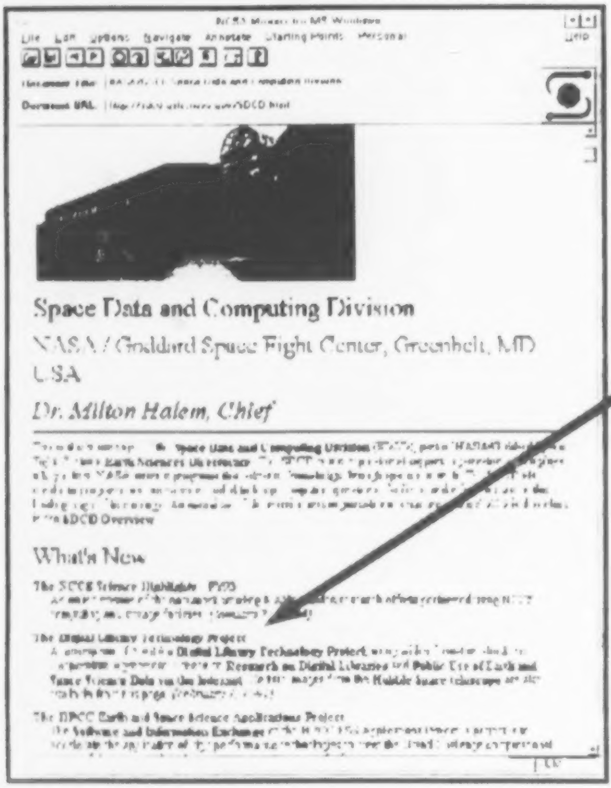
The Windows Mosaci Tech Support Group has released NCSA Mosaic for Microsoft Windows Version 2.0 alpha1.

NCSA Mosaic is smooth network navigational tool that allows you to easily access networked information with the click of a button. Mosaic is capable of accessing data via protocols such as Gopher, World Wide Web, FTP and NNTP (Usenet News) natively, and other data services such as Archie, WAIS, and Veronica through gateways. NCSA Mosaic was designed to provide its user transparent and seamless access to these information sources and services. Mosaic is a product that will retrieve and display a wide variety of data types. These types include text, images, movies and audio.

NCSA Mosaic for Microsoft Windows is a WinSock client program. It requires network (TCP/IP) access through the WinSock DLL interface. If you are using Windows NT, this is built in. If you are using Windows 3.1, you need to obtain a WinSock and install it on your system. If you are running a commercial TCP/IP stack, such as FTP Software, Novell, PCNFS, etc., you will need to obtain that vendors winsock.dll. If you need a winsock.dll and you would like to obtain an alpha version of a shareware product called the "Trumpet Software International Winsock", you can find this product at the ftp site, ftp.utas.edu.au. The file winsock.zip is in the pc/trumpet/winsock directory.

Version 2.0 alpha1 of Mosaic is available via anonymous FTP on NCSA's FTP server, "ftp.ncsa.uiuc.edu"(141.142.20.50), in the directory "/PC/Mosaic". The file is wmos20a1.zip.

MOSAICS FOR K12



Space Data and Computing Division

NASA / Goddard Space Fight Center, Greenbelt, MD USA

Dr. Milton Halem, Chief

What's New

Title: **NASA/GSFC SPACE DATA and Computing Division**

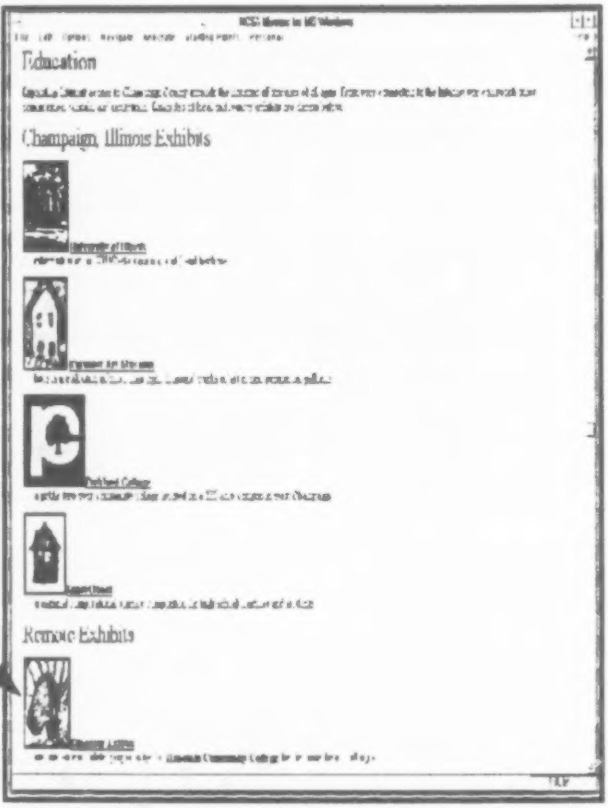
URL: http://sdcd.gsfc.nasa.gov/SDCD.html

✓ **The Digital Library Technology Project**

Title: The Scalable Community Network

URL: http://www.ncsa.uiuc/General/Champaign Cty/Education.html

✓ **Dinosaur Exhibit**



Education

Champaign, Illinois Exhibits

Remote Exhibits

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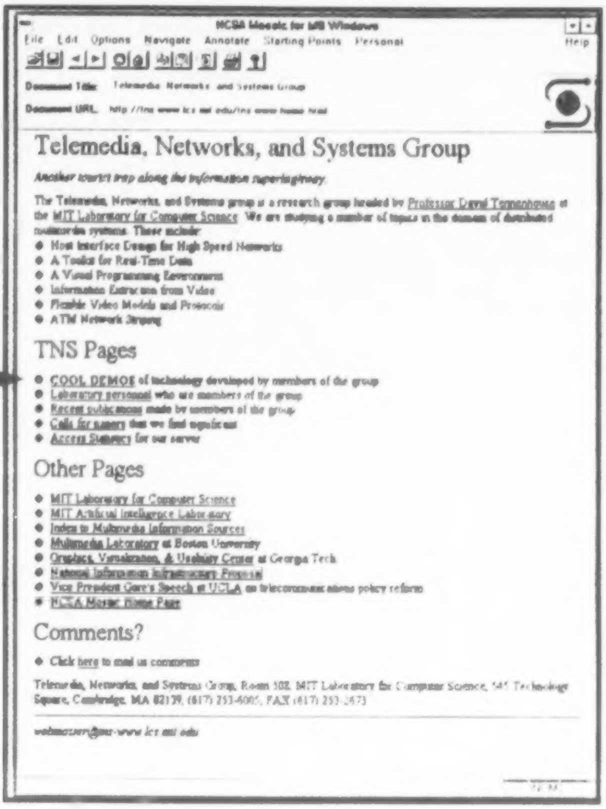
MOSAICS FOR K12

Title: Telemedia, Networks, and Systems Groups

URL: http://tns-www.lcs.mit.edu/tns-www-home.html

COOL DEMOS


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Personal Help

Document Title: Telemedia, Networks, and Systems Group

Document URL: http://tns-www.lcs.mit.edu/tns-www-home.html

Telemedia, Networks, and Systems Group

Another tourist trap along the information superhighway.

The Telemedia, Networks, and Systems group is a research group headed by Professor David Tennenhouse at the MIT Laboratory for Computer Science. We are studying a number of topics in the domain of distributed multimedia systems. These include:

- Host Interface Design for High Speed Networks
- A Toolkit for Real-Time Data
- A Visual Programming Environment
- Information Extraction from Video
- Flexible Video Models and Protocols
- ATM Network Striping

TNS Pages

- COOL DEMOS of technology developed by members of the group
- Laboratory personnel who are members of the group
- Recent publications made by members of the group
- Calls for papers that we find significant
- Access Statistics for our server

Other Pages

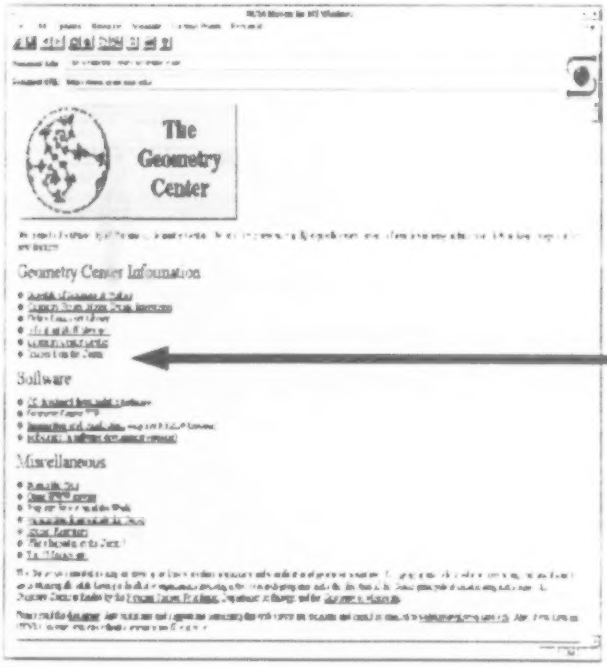
- MIT Laboratory for Computer Science
- MIT Artificial Intelligence Laboratory
- Index to Multimedia Information Sources
- Multimedia Laboratory at Boston University
- Graphics, Visualization, & Usability Center at Georgia Tech
- National Information Infrastructure Proposal
- Vice President Gore's Speech at UCLA on telecommunications policy reform
- NCSA Mosaic Home Page

Comments?

- Click here to mail us comments

Telemedia, Networks, and Systems Group, Room 502, MIT Laboratory for Computer Science, 545 Technology Square, Cambridge, MA 02139, (617) 253-6005, FAX (617) 253-2673

webmaster@tns-www.lcs.mit.edu



Geometry Center Information

Software

Miscellaneous

Title: The Geometry Center Welcome Page

URL: http://www.geom.umn.edu/

Images from Center

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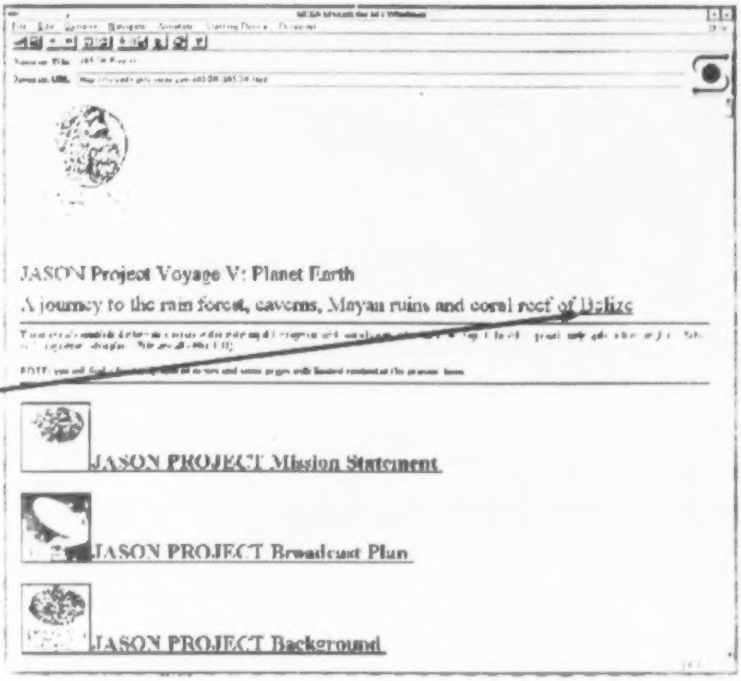
MOSAICS FOR K12

Title: JASON PROJECT

URL: http://seawifs.nasa.gov/JASON/JASON.html



JASON Project Voyage V: Planet Earth

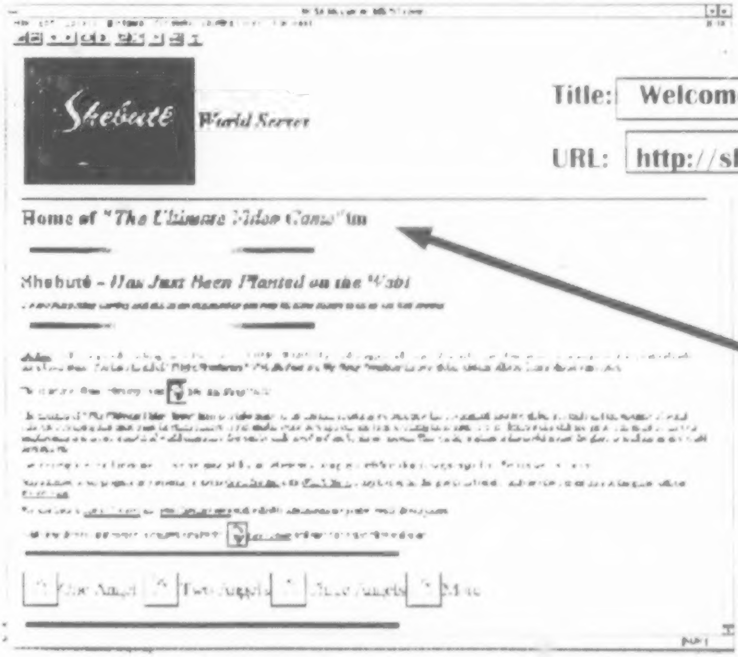
A journey to the rain forest, caverns, Mayan ruins and coral reef of Belize

JASON PROJECT Mission Statement

JASON PROJECT Broadcast Plan

JASON PROJECT Background

BELIZE



Home of "The Ultimate Video Game"tm

Shebuté – Has Just Been Planted on the Web

Title: Welcome To The Home of SHEBUT&eacute;

URL: http://shebute.com/HOME.HTML

The Ultimate Video Game

BEST COPY AVAILABLE

(Continued from page 3)

Megabytes of information, and the user agent successfully manages to provide a single, consistent and simple interface to this wealth of information.

Mosaic is the most recent software development to address the problem of information retrieval from the vast array of Internet resources. Mosaic has been developed by the US National Centre for Supercomputer Applications at the University of Illinios. The tool is a window to a number of network information models, including the gopher model and the World Wide Web hypertext information model. The information is accessed via a consistent graphical interface where information and references are embedded within text. Retrieval of information is achieved by clicking on bolded words within documents. Mosaic is very user friendly, but achieves its functionality at the expense of large amounts of data transfer, so its usefulness is severely restricted by the speed of the connection into the Internet.

1993-1994 Global Schoolhouse Project

Perhaps the most exciting of the projects planned for 1994 is participation in the Global Schoolhouse, (GSH), Project. The Global Schoolhouse Project is an educational initiative which has support from the US National Science Foundation. Wanniassa Hills Primary School has been accepted as a participating transmission site for this project for 1993/1994.

This project is considered to be one of the most innovative of the recent educational uses of the Internet. The GSH Project demonstrates how the Internet can be used to transmit video across the computer network, and do so at a cost which is orders of magnitude lower than conventional video-conferencing costs. By using a camera connected to a AV capable Macintosh personal computer, and the Internet connection, the school will participate in a four week schedule of interactive class sessions, working with another 16 classes around the globe. While just 17 schools will be transmission sites for the GSH Project, any school on the Internet will be able to be a receiver, and materials relating to the Project work will be available on the Internet.

This is a unique opportunity for Australia to participate at the pioneering stage of this new and exciting technology.

The Support Role

The rapid acceptance of this new educational tool can, at least in part, be attributed to the employment of an Internet specialist in a startup role for the school. As has been already noted in this paper, teachers will only take up this technology if it is carefully presented in a very user friendly format. They simply do not have the time nor the need to become computing literate if they have to rely on jargon filled manuals for instruction. The role of the specialist here is to construct a self-sustaining core of expertise within the school community .

The author was employed on a part-time basis to assist the staff in navigating the Internet and to establish a web of contacts as well as providing instruction in both the use of computers and the use of communications software. What has now been established at WHPS, is a small group of teachers who are competent users of computer communications tools and who can now go on to educate their colleagues, fulfilling the objective of creating a self-sustaining core of knowledge and motivation.

It is noted that the most effective startup methodology is a short, but intensive period of activity, concentrating on individual instruction rather than more general group sessions. Within 4 weeks at WHPS all 18 teachers have been individually introduced to the Internet, most of whom are computer novices. The individual sessions were designed to provide a basic level of computer skills and instill both confidence and motivation to explore the Internet resources further. This has already resulted in 8 teachers and their classes communicating with classes in the U.S.A.. and Canada, with the support role looking after the mechanics of the Internet connection and its operation while the teachers were able to concentrate their time on introducing telecommunications projects into their classroom.

Conclusions

The Internet expands the K-6 classroom by making many resources from all over the world directly and immediately available to students and teachers alike. It brings information, data, images, and people directly into the classroom, creating an environment richly populated with resources, information and ideas.

The Internet allows each class to respond to such an environment with their own inputs of thought, creativity and imagination, publishing their own resources, capabilities and ideas back onto the Internet for others to use and enjoy. An environment of creativity and sharing is an essential attribute of the K-6 educational program, and the Internet constructively challenges this environment by allowing this creativity and sharing to take place within a truly global domain.

More has been achieved at WHPS in just 4 weeks with computers and networks than has been achieved in 4 years of unconnected computers. Networking oddly enough adds a human dimension to the experience. Instead of the classroom interacting with lifeless silicon and mechanistic programs the computer becomes a window to other users, and the interaction assumes a vibrancy and dynamism of interaction typically only seen in the playground.

The approach of providing a high degree of specialist support at an individual level to start off the project appears to be an optimal use of resources. WHPS has now achieved a

(continued on next page)

(Continued from page 11)

level of capability which is now self sustaining, with a core of highly motivated teachers providing a constant stimulus of new ideas to the entire school community. The school is now perhaps entering a second phase of involvement with the Internet where the school as a unit is acting as a catalyst for neighboring schools to embark on similar programs of Internet involvement.

Part of the overall magnetism is the astonishingly low cost for a school to get involved in this area. This is not a capital intensive program by any means, where for most schools the only piece of equipment required is an inexpensive modem. However cost alone, as low as it may be, does not ensure effective introduction of this technology into the K-6 environment. The Internet is not as yet a "plug and play" environment. The other essential ingredient of a successful program is initial individual specialist support directed at teachers to provide basic Internet navigational skills and a motivational starting point for further personal and class exploration.

The major conclusion that can be drawn from the work to date is that there is a definite and indeed highly essential role the Internet can play in the initial years of formal education in the K-6 classroom, and that this can be achieved in a highly cost effective and productive manner.

The second conclusion is that a program of widespread introduction of this facility into the country's schools will have to be undertaken with due care and attention paid to the provision of helpful specialist advice during each school's initial steps along this particular path. This is not an environment where traditional top down approaches, such as the application of program money with centrally administered in-service teacher education programs, are going to be effective. Indeed it is reasonable to suggest that such programs will be more damaging than helpful! Perhaps the most effective program is going to be that of a wavefront, where startup resources are concentrated on each school as they pick up the program, and moving onto a new school once a level of self-sufficiency is reached.

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Sponsorship

The local corporate community has been very supportive of our efforts in this area. AARNet has provided the school with Internet access and technical support. Cisco Systems Australia are providing a multiprotocol router and technical support. Krone is sup-plying a cable system for the school so that each classroom will be wired with a network port. Cabletron is providing a network hub unit. All of these corpora-tions have generously provided these services free of charge to the school and we are very grateful to these providers for their support in this technically in-novative project.

Network References

Macintosh Software:

MacTCP can be purchased from Apple as licensed software. However one of the more cost effective ways of getting both this software, and a wealth of other good Macintosh Internet software as well as a good reference book, is to purchase the book (and disk) Internet Starter Kit for Macintosh by Adam C Engst, published by Hayden Books (ISBN: 1-56830-064-6. The disk includes Eudora, Fetch, InterSlip, MacTCP, Stuffit Expander and TurboGopher.

In addition the anonymous ftp archive ftp.tidbits.com:/pub/tidbits contains other useful Macintosh Internet applications.

InterSlip is freely available software from Intercon. It can be retrieved via anonymous ftp from the network reference
ftp.intercon.com:/InterCon/sales/InterSLIP-1.0fc1.sit.hqx.

Eudora is freely available software using anonymous ftp from the network reference
ftp.qualcomm.com:/mac/eudora/1.4.1/Eudora1.4.1.sea.hqx. Version 2.0 is available as licensed software.

TurboGopher is freely available software using anonymous ftp from the network reference
archie.au:/gopher/Macintosh-TurboGopher/TurboGopher1.0.8b3.hqx

Mosaic for the Macintosh is available using anonymous ftp from the host ftp.ncsa.uiuc.edu in the subdirectory /Mac/Mosaic/.

Mailing Lists

While mailing lists for the K-12 environment abound, I have found the following particularly relevant within the context of the work described in this paper. Other mailing lists focus on teaching practices and resources and on student interaction.

Kidsphere has provided a very useful forum for making contact with K-12 schools. Subscribe to the list by sending mail to:
< kidsphere-request@vms.cis.pitt.edu>
and in the body of the message write "SUBSCRIBE KIDSPHERE firstname lastname".

Middle-L is a list for middle school discussions - years 5 - 8. Subscribe to the list by sending mail to:
<listserv@vmd.cso.uiuc.edu >
and in the body of the message write "SUBSCRIBE MIDDLE-L firstname lastname".

International E-mail Classroom Connections is a classroom to classroom contact introduction list. Subscribe to the list by sending mail to:
< iecc-request@stolaf.edu>
and in the body of the message write "subscribe"

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel +1 703-471-0593 ISSN 1070-2954

The Digital Calendar

March 1994

6-8 Mar. **SYMPOSIUM ON APPLIED COMPUTING (SAC'94) SPECIAL TRACK ON COMPUTER APPLICATIONS IN EDUCATION** Phoenix Civic Plaza, Phoenix, Arizona. For general inquiries please contact the conference director, Ed Deaton, at: Dept.of Mathematical Sciences, San Diego State University, San Diego, CA 92182. e-mail:<deaton@cs.sdsu.edu> ;tel: +1-619-594-5962; fax: +1-619-594-6746

16-19 Mar- **STATE 94 (SOCIETY FOR TECHNOLOGY AND TEACHER EDUCATION)** – Fifth Annual Meeting; Washington, D.C. This year's theme is "Methods and Models for the 90s." For information contact: STATE 94, AACE, P.O. Box 2966 Charlottesville, VA 22902 USA e-mail: <AACE@virginia.edu>; tel +1-804-973-3987; fax: +1-804-978-7449

23-24 Mar **The Sixth Hawaii Information and Technology Symposium (HINTS);** Honolulu, Hawaii. Representatives of the Clinton administration, Congress, and the FCC have been invited to deliver their perspectives on the Information Highway. Joining them will be community networkers such as Steve Cisler (Apple Computer) and Frank Odasz (Big Sky), local telco and cable TV representatives, the PUC, and Hawaii educators. Contact HAWAII INC: +1 (808)586-4636, fax +1 (808) 586-4625, e-mail johnp@pulua.hcc.hawaii.edu.

April 1994

4-8 Apr. **AERA (ENETSIG) Meeting in New Orleans Conference Theme: Aternative Learning Environments: Work, School, Play.** For AERA E-NET SIG: Contact Daniel Blaine, University of Hawaii at Manoa, USA . E-mail to <daniel@uhunix.uhcc.Hawaii.Edu> <daniel@uhunix.bitnet >

6-8 Apr. NET'94. **The National Net'94** Washington, D.C. Ronald Brown, Secretary of Commerce, will be the opening keynote speaker. Preliminary program details are available by gopher at educom.edu.

7-10 Apr **The New Learning Environment: Serving Diversity Through Technology** in Albuquerque, New Mexico. Sponsored by the National Eduation Association (NEA) and the Rocky Mountain Associaion for Technology in Education (RMATE). Inquires to: Libby Black, Director, Boulder Valley Internet Project Boulder Valley Public Schools & The University of Colorado at Boulder. e-mail: <black@bvsd.k12.co.us> ; tel: +1 303- 447-5090; fax: +1 303- 447-5024

14-16 Apr **NCCE 23rd Annual Conference,** Spokane Center, Spokane, Washington. The Northwest Council for Computer Education invites educators and school administrators to come see the latest hardware, software, technical publications, and related equipment in the academic environment. For information, write to NCCE'94, 1277 University of Oregon, Eugene, OR 97403-1277 USA

17-18 Apr **Fifth Annual Activating Children Through Technology (ACTT)** Conference; Macomb, IL; ACTT V, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; tel. +1 309-298-1634 (Joyce).

17-19 Apr **Educational Technology Institute, "The Road Map to School Improvement"**; Albuquerque, NM; NM State Department of Education, Celia Einhorn, Technology and Training, 10580 S. Hwy 14, Tijeras, NM 87059; tel. +1 505-281-1122; fax +1 505-256-1122; fax 505/256-4452; e-mail: <einhorn@apsicc.aps.edu>

18-24 Apr **Eighth International Conference of the European Schools Project, "Connecting the World"**; Amsterdam, The Netherlands; Pauline Meijer, Universiteit van Amsterdam, Grote Bickersstraat 72, 1013 KS Amsterdam, The Netherlands; tel. +1 31-20-5251248; fax +1 31-20-525-1211; E-mail: pauline@esp.educ.uva.nl.

27-30 Apr **Technology and Innovations In Education (TIE) Eighth Regional Technology Conference**; Sioux Falls, SD; TIE '94, 1925 Plaza Blvd., Rapid City, SD 57702-9357; ph. 605/394-1876; fax 605/394-5315.

27-30 Apr **Eleventh International Conference on Technology and Education, "Deciding our Future: Technological Imperatives for Education";** London, England; Tom Sechrest, Conference Coordinator, The 11th International Conference for Technology in Education, University of Texas in Austin, P.O.. Box AA, Austin, TX 78713 USA; tel. +1 512-471-4080; fax +1 512-471-8786.

27-29 Apr. **The Distance Education Research Conference** presented by Texas A & M University and St. Philip's College in San Antonio, Texas. Inquiries to: Dr. Karen Murphy, Conference Chair, Educational HRD, Texas A & M University, College Station, Texas 77843-3256; tel: +1 409-845-3016; fax: +1 409-845-0409

29-30 Apr **Virginia Society for Technology in Education (VSTE) Annual Conference**; Wintergreen, VA; Dr. Daniel Arkin, Executive Director, Virginia Society for Technology in Education, University of Virginia, Curry School of Education, 405 Emmet Street, 287 Ruffner Hall, Charlottesville, VA 22903; tel. +1 804-320-3424; e-mail: <vste@virginia.edu>

May 1994

11-14 May. **CADE'94 CONFERENCE: Distance! Quelle Distance?** The 1994 conference of the Canadian Association for Distance Education will be held in Vancouver, B.C., Canada. Inquiries about the conference can be directed to CADE '94, Centre for Distance Education, Simon Fraser University, Burnaby V5A 1S6 BC., Canada; tel +1-604-291-3524; fax+1-604-291-4964; e-mail: <Heather_Persons@sfu.ca>

June 1994

13-15 June **NECC'94. Recreating the Revolution.** Hynes Convention Center, Boston, Massachusetts. For information, contact Donella Ingham, tel. +1 503-346-2834; e-mail: donella_ingham@ccmail.uoregon.edu

MathMagic--Making Math Fun Through Challenge

By Alan Hodson

MathMagic, is a K-12 telecommunications project developed in El Paso,TX that provides a strong motivator for students to use computer technology while increasing problem-solving strategies and communications skills. In a nutshell, *MathMagic* posts challenges into each of four categories (k-3, 4-6, 7-9 and 10-12) to trigger each registered team to pair up with another team and engage in an exchange of problem-solving dialog. When an agreement is reached, one solution is posted for every pair.

This project is for schools who are presently using or shortly plan to use computers with modems. Direct Internet access is desirable but in some areas, a local Bulletin Board System (BBS) or Net user may have to act as a go-between.

Each registered team is expected to work with a NET TEAM PARTNER (NTP) who may be local, state, national or international. They must discuss solution strategies and agree on the solution they are going to post. A good measure of the success of the project rests on the "grass-roots" exchanges, when teams meet each other and exchange personal/school/city information. The postings and some team exchanges are made via a MAILING LIST maintained by The Geometry Forum at Swarthmore College on their "majordomo" Mailing List server

There are two broad categories of participants: REGISTERED and UNREGISTERED. All registered teams will be entitled to full access to all the list's mailings, and will have the ability to "post" any question, comment or reply at any time. UNREGISTERED teams, on the other hand, can receive all mailings and read the exchanges, but will not be able to post directly to the lists.

The lists are:

UNREGISTERED	*(REGISTERED)*
mathmagic-k-3-open	*(mathmagic-k-3)*
mathmagic-4-6-open	*(mathmagic-4-6)*
mathmagic-7-9-open	*(mathmagic-7-9)*
mathmagic-10-12-open	*(mathmagic-10-12)*

One of the most valuable lessons a teacher learns is when s/he can observe and discuss the student's metacognition. For this purpose,a fifth list,
<mathmagic-general-open>

will also be available to schools of education, assorted profs, teachers, supervisors and in general to all interested parties wanting to discuss math learning and the student exchanges observed in these lists. Since school calendars and holidays differ the world over, registered participants are not expected to address all challenges. The "official" language of the postings is standard American English.

Full registration donation for a year (12 months) of *MathMagic* should be US$12 (twelve US dollars) per four student team. Each school site will need to have appropriate fund-raising activities. The registration form calls for the name of a faculty sponsor, and a team name. Each team's name will consist of the sponsor's last name (surname), a color, the school mascot, and city/state/country information: Hodson's Gold Gators/El Paso, TX can end up working with Nahim's Blue Tigers/Tel Aviv, IL.

All registered users will receive a certificate of participation, incentives and have more privileges than nonregistered users. The world-wide postings of the student's postings also act as powerful motivators.

All subscriptions (registered and non) begin with a free subscript-ion to one of the "...-open" lists. Send the following e-mail message to:
majordomo@forum.swarthmore.edu
subscribe mathmagic-X-Y-open
where X-Y is either K-3, 4-6, 7-9, 10-12 or general.

After subscribing to any "-open" list a user will receive an acknowledgement and a REGISTRATION FORM that should be completed and returned to the address below.

For further information contact:
Alan Hodson at:
< alanh@laguna.epcc.edu> or
<ahodson@tenet.edu>

To receive more information on *MathMagic* and the files available, send e-mail (no "Subject:" needed) to:
<mail-server@forum.swarthmore.edu>
Subject: (none - leave blank)
(Mesage:) send mathmagic/general.information/INDEX

Users can also ftp the Math-Magic information files thus:
ftp forum.swarthmore.edu
'Username:' anonymous
'Password:' (your e-mail 'name'@)
'FORUM.SWARTHMORE.EDU>' cd mathmagic
'FORUM.SWARTHMORE.EDU>' dir (lists all directories)
or ls (for UNIX systems))
"FORUM.SWARTHMORE.EDU>' cd general (or any other directory)

NEWS FROM WASHINGTON AND AROUND THE WORLD

IITF COMMITTEE REPORT

NII Advisory Council: On February 10, the U.S. Advisory Council on the National Information Infrastructure (NII) will hold its first meeting at the Old Executive Office Building, Room 450, from 1:00 p.m. to 4:00 p.m. An overflow room is available, with audio and video transmission, at the Truman Room at the White House Conference Center, 726 Jackson Street. The meeting will be open to the public.

IITF: The second IITF meeting was held on January 25 in the Vice President's Ceremonial Office, chaired by Secretary of Commerce Ronald Brown. The Committee Chairs provided an overview of their six-month workplans and recent accomplishments. Several departments/agencies also gave brief presentations on how they might play a role in implementing the NII initiative: Department of Energy, NASA, Environmental Protection Agency, Intelligence Community, HUD, and Department of Agriculture. Also attached is an updated list of all IITF Committees and Working Groups.

Public Interest Conference: The IITF is planning to host a public interest conference in early March with the cooperation of each IITF Committee. Several panels are planned on specific areas of interest to the public interest community.

Schedule of Upcoming Public Events

March 4: "20/20 Vision" Conference; Annenberg Washington Program ; The Willard Office Building (sponsored by Technology Policy Committee)

March 17: Committee on Applications and Technology; 10:45 a.m. - 11:45 a.m.; National Institute of Standards and Technology;

On February 8, 1994, the US Senate passed its education improvement framework legislation called "Goals 2000: Educate America Act". The Act was previously passed by the US House Of Representatives and it now goes to the conference committee which will finalize the bill.

IEA REPORT ON COMPUTERS IN EDUCATION 1992

On February 1, 1994 A Nation Report from the International Association for the Evaluation of Education Achievement (IEA) released a report entitled, Computers in American Schools 1993: An Overview.

The report noted:

Computers have become a way of life in American schools. Ninety-nine percent of the elementary and secondary schools in the United States have installed computers, and over 90 percent of the students use them during the school year. Yet, compared to Austria, Germany, and the Nether-lands, American students are less computer-knowledgeable, their teachers get kess computer training, and their equipment is more out of date.

The salient points of the report were:

- Almost half of American households with school-age children have computers.
- No gender gaps appears among US students in either grade 8 or 11.
- Comparing ethnic groups in the US in their practical computer knowledge.
- Native American, Hispanic, and African-American or black students tend to fall about 10 points lower than Asian Americans and white students in both 8th and 11th grades.
- American teachers apparently have less opportunity to take inservice computer courses than do teachers in other countries.
- School computer coordinators report spending more time "helping students" than coordinators in other countries and less time helping teachers.
- The US leads the world in raw numbers of school computers as well as in computer density measured by the ratio of students to computers.
- American schools have many more older 8-bit machines than other countries. These 8-bit computers, primarily Apple II's are slowly being replaced by the newer, faster 16-or-32-bit computers such as IBM PC-compatibles and Macintoshes. However, over 50 percent of the computers used in American schools by teachers or students are the older Apple II computers.
- Students who use older computers do not learn to use the types of computers that are typically used in the work-places, do not get experience with multimedia software and access to advanced electronic networks.

The major conclusions of the report were:

- Computer technology could be used more effectively by students in their homes as well as school. Both teachers and students need beeter training in using and applying information technology.
- The US has taken a "hit or miss" approach to teaching students how to use important new computing tools....Improving existing methods and upgrading technology is not enough. It is even more critical to plan for the future and establish new institutions that insure adequate continuing education and training for all Americans.
- Improving education with computers requires more than hardware and software. Students also need to work with skilled people including teachers, parents, co-workers, and friends.

For further information about this report contact the IEA Computers in Education Study, 909 Social Studies Bldg, University of Minnesota, Minneapolis, MN 55455; tel: +1 612-624-3824; fax: +1 612-624-4586; internet e-mail: <christ@iea.soc.umn.edu>

Copies of the 200 page report can be ordered by sending a check or purchase order for $18.00 to the IEA Computers in Education Study. Checks should be made out to the University of Minnesota.

VIDEOS ON K12 NETWORKING

There are three excellent videos now available to demonstrate how powerful a tool the Internet is in K12 education.

***Future Schools Connected to the World** is shortly to be released. The 28 minute video was put together by MIT with funding from ARPA. It profiles the Val Verde School District networking program and demonstrates how a school district with an enlightened superintendent and dedicated staff and community can put together a first rate, class act networking program. Excellent video to show "how easy" it is for even elementary age students to use Internet navigational tooks and advanced technologies. For further information contact: the MIT IDOHRS Tel. +1 617-253-4138; fax number +1 617-253-7326. or send email to <scn@far.mit.edu> . Ask for the MIT Educational Video.*

***Best of the Global Schoolhouse Project** is now available from the Global SchoolNet Foundation. The video gives a good look at the Global Schoolhouse Project in operation, and like the MIT video demonstrates how powerful the Internet is as an educational tool as well as a tool for facilitating educational reform. For more information contact: The Global SchoolNet Foundation, 700 Avenida Encinas, 104-281, Carlsbad, California 92009 USA, Tel +1 619-931-5934. Send e-mail to: andresyv@cerf.net*

***Accessing the Internet** is an older video (released 3/15/93) that is only 11 minutes long but takes a look at the Rocky Mountain School District. For more information contact: US West Communications, 1801 California Street, Suite 5020, Denver, CO. 80202, +1 303-896-4239.*

Over 100,000 requests were logged the first day that the Norwegian Olympic Server was set up. This necessitated setting up mirror sites for Olympic information in North America and the Pacific.

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages*.

NetTEACH NEWS is published ten times a year.

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NetTEACH NEWS

Volume 1, No. 10 The Newsletter for K-12 Networking Educators March 1994

A Small Green Island—Can We Make A Difference? You have.

by Kathy Rutkowski <kmr@chaos.com>

You and I on a small green island,
Spinning round and round in space...
...And the small green island Is a living being; And we the living proof Of her grace.
...Yet in the night, the children are dying...
...In the cries of the dying, a song of life's rising...
...Will you take a stand For freedom of spirit and the family of man. Oh, can we make a difference? Yes, we can, yes we can. ("The Small Green Island"by Osborn, Halley, and Spear, in the Susan, *CD, Living Music 1987)*

A year ago, the first issue of NetTeach News was published. It began with an insatiable curiosity to reach out to an unknown community of isolated educators scattered around the globe who were living and preaching the magic of computer networks.

In this year, I have traveled virtually thousands of miles and have also had opportunities for face-to-face meetings with many of you NetTeachers who have become part of my virtual family.

Now I see faces of librarians, media specialists, classroom teachers, district technology specialists, technology trainers, university professors, principals, community activists, and many others who see this world as "a small green island" and perhaps when they have the time (something they rarely have) they ask themselves the question, "can we make a difference?".

Yes, let me tell you, you can make a difference and you have, and on behalf of all the children on this small green island, I congratulate every one of you for your many sacrifices.

It's not easy to promote change—there are few thanks and mostly glares but somehow you continue and you seem to thrive on major challenge. I have learnt your secret—you live for those little smiles.;)—the kind that will grow into big smiles and that will one day ensnare a world of skeptics.

Some call you "Internet priests and priestesses"or technology geeks, some call you early adapters and change agents, others call you troublemakers, upstarts, and malcontents but I call you Sarah, Dave, Alice, Stephanie, Leni, Yvonne, Patsy, Ferdi, Bruce, Jan, Leni, John, Steve, Mark, Carol, Jennifer, Betty Dawn, Sharon, Perky, Laurie, Bob, Paul, Bonnie, Marti, Cynthia, Currie, Gleason, Lena, Carla, Sally, —entirely too many of you to thank personally here by name—I'd need a wall like the Vietnam Memorial.

You've not just preached networking but you've lived it and through it found ways to come together and end your isolation.

We've reached a point in K12 networking—thanks to your sheer tenacity— where many of you can now see colleagues lining up in your buildings waiting for access and training.

The word has spread and now networking is an important subject in most of the major educational conferences concerning technology.

This month, I attended STATE'94 – the Annual Conference on Technology and Teacher Education sponsored by the Society for Technology and Teacher Education .

(See **Green Island**, *next page)*

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Bonnie Bracey, the teacher named to the IITF, is a dynamic lady who loves teaching and never stops looking for new tools and new experiences for her students and herself.

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There's an epidemic of grant fever.

(**Green Island**, *continued from page 1*)

The three keynote speakers were: Bev Hunter of BBN, Ed Fitzsimmons of OSTP, and Linda Roberts, Director of Technology and Special Advisor on Technology, US Department of Education.

Bev Hunter spoke about "Teacher Contributions to the Information Infrastructure", Ed Fitzsimmons described "The Second Revolution: Access to Excellence Through Information Technology", and Linda Roberts talked about "Teacher Networks for Professional Development".

Bev Hunter reminded all the pioneers at STATE'94 that they—all of you— " are building the information infrastructure". All your individual and collaborative efforts will one day make real Masuda's vision that Bev defined as "an open education environment made of knowledge networks".

Bev offered some good advice to all of you. Foremost, you need to legitimize your work and all the work of your colleagues. Publish your work and give professional recognition to one another.

Secondly, seek quality. As Bev says, "there is no perfect project" but we can learn from all projects and build on them.

Thirdly, make cumulative the work by issuing faqs, setting up archives, and developing standards.

Bev offered more excellent advice such as providing tools and instructional purpose for user construction of knowledge and building scalable, open, client-server distributed user-constructed systems, but perhaps her most important pearl of wisdom was her observation that "inventing new institutions doesn't come easily".

Ed Fitzsimmons suggested that here in the US, we have "lost the value of a cohesive learning system that prepares individuals for future success" and the cost to education is "uneasy taxpayer support and the wavering prestige of the teaching profession". He called for educators to use information technologies to create a learning system that better prepares future generations of Americans to work successfully in the Information Age Age workplaces.

Linda Roberts talked about the Clinton Administration commitment to an educational component on the NII and likened the Clinton agenda to a "ship that's moving with a captain, not going slowly, and making major waves." She called on educators to work together with the Administration to promote the kinds of legislation required to bring information technology into classrooms across the country in a fair and equitable manner.

Many other presenters with familiar names such as Judi Harris, Chris Dede, Keith Vogt, Bernard Robin, Glen Bull, Jean Casey, Bob Tinker talked about the role of networking in education. As I listened to the tales of those who are promoting change in the Schools of Education, I recalled similar tales from the many classroom pioneers I met in Dallas at Tel Ed'93.

It occurred to me that there must be a way—some vehicle—to bring these groups together. Where is this place, I wondered, where you can come together and legitimize one another. Of course, the answer is not one institution or one conference but one space—one global space called the Internet.

The Internet may be a corporeal body in space but you are its heart and soul—as individuals and as a collective. Thus, the Internet does not define who you are but rather you as you communicate, collaborate, and cooperate define this place.

There is major work to do to bring this capability to all schools, and all teachers and students across the nation and around this globe.

The good news is that the numbers of willing builders are growing, and that the winds of change are igniting the many local fires that you pioneers have started and continue to start.

A year ago, I wrote the words,

"Perhaps the greatest contribution of computer networks is in their seemingly magical ability to encourage teachers to learn and to remember the wonder and excitement of their own childhood. Teachers so inspired like those ancient cavemen (excited hunters who upon returning with their kill drew inspired drawings of the wooly mammoths on the walls of their cave dwellings) reach out to future generations to share the excitement of the hunt and to ask those future generations the most profound questions, "Who are you, and what is this place".

A year later and you are sharing your inspirations on a rapidly expanding global web for future generations and by so doing are defining the place that is a "small green island spinning round and round in space". What amazing things you have accomplished in one year, and what a major step you have taken collectively for mankind.

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Unsolicited submissions are welcome and should be sent to the Editor at kmr@chaos.com

Networks: Where Have You Been All My Life?
by Rachel Weston

As I flipped through my e-mail messages one morning I suddenly received a new one entitled "The Sydney Bush Fires." The mail was from my Australian keypal,and he was telling me and some of his other keypals what it was like to be experiencing the bus fires that were burning all round Sydney. Forgetting all about my other messages for the time being, I quickly wrote back and arranged to go with him to the KIDLINK IRC (INTERNET Relay Chat). On IRC, a place where, amazingly, people can talk back and forth, I was able to ask my friend all about the disaster. It turned out he was less than ten kilometers from the fires, he could see the flame-tinged sky and smell the smoke from his window, and he was able to tell me how far the fires were from the famous Opera House and the Taronga Park Zoo. During the next several days I communicated through e-mail several times more with my Sydney friend, and the fires got even closer to his house. Ultimately he was safe. However, all week long the information about the Sydney fires that I knew was more up to date than anything in the newspapers.

That is only one of my amazing network experiences, but it is one that illustrates the way being on a computer network and having access to the INTERNET has changed my life in wonderful ways.

I was one of the first students I from my school to get an electronic address on CapAccess, a local public access network in the Washington, DC metropolitan area. Using CapAccess I have learned how to use the library section which is very helpful with my school research projects. In this section I can search for information from a dictionary, a library card catalog, or an article database. This occurred recently when I wrote about the Blue Crab that lives in the Chesapeake Bay. While I couldn't always get the article that I needed, the network told me exactly where to look in my local library, and if I had a fax machine (which I don't), I could have asked for an article to be faxed to me for a small charge.

I have also used gopher sections to look up interesting topics, gatherinformation and mail them to my electronic mailbox. Lots of places have a gopher and when you get to one gopher, it is possible to travel from there to lots of other gopher locations.

Now that I have been on CapAccess for a few months, I am interested in registering at another frequent, perhaps at the National Capital Freenet in Ottawa, Canada. One of the neat things about this network is that, being in Canada, it has information in French and in English. After visiting this network a few times, I believe it will give me some pportunities to develop my French skills and be a better French student.

Being on a network has also expanded my circle of friends. At my school right now there are not many girls who are as interested in network technology as I am, though there are quite a few boys. By joining a listserv called Kidcafe, I have met a group of girls who are just as interested as I am (I have also met some more boys.) At the beginning many of us used the listserv a lot. Now we use our own electronic addresses, and only use the listserv on occasion. I still use the Kidcafe listserv to make new acquaintances.

My friends, write back and forth almost every day, and we carry on interesting conversations – sometimes about the networking and sometimes about ordinary middle school things. Sometimes we help each other learn how to do new technical things. For instance, my friends in England and Tennessee helped me get started and master IRC. As I get more confident about my networking skills, I hope to share them with my friends at school, encouraging them to discover the opportunities that are available. I would also like to help my school develop its space on CapAccess. I think it would be fun to have a conversation area or, more importantly, a homework question-and-answer section. This would involve both teachers and students. Because a lot of students would be interested in using the homework section, they would master the basics of networking. I think this is how a lot of people will eventually learn these skills – they will need to do a particular task, and learn the networking part in order to do the job.

Although the INTERNET and CapAccess are a lot of fun and have expanded my horizons, there are some difficulties. In order to make some time each day to use the network, I have had to become more organized with my schoolwork. Sometimes that even means starting my homework at recess and really working in study hall. At other times, I rush to check and clear messages when I have a minute or two after school.

These days I cannot imagine how I used to manage without access to a network. The technology of the network and my activities have made me realize how small the world can be. When I communicate with someone in Slovenia or England or Argentina I realize that the problems that they have are not very far away from me. So even though we are all far away from one another in miles, we are all part of the same global community.

[Editor's Note: This was an award-winning essay selected in a Competition for Best Essays By Student Users of the Internet held by NSF/NASA/NCES . The winners presented their winning essays at the NSF/NASA/NCES spon-sored Conference, entitled Connecting with the Future held last February 21-22 in Orlando, Florida. Rachel is a student at Georgetown Day School in Washington, D.C. This is reprinted with the author's permission]

Project PROFILE: Bonnie Bracey On the Jason Project

[Editor's Note— Bonnie Brace is education's lone voice on the The National Information Infrastructure Advisory Task Force. I've had the pleasure of e-chatting with Bonnie and I feel assured that she is doing an excellent job representing K12 interests. Scholastic has started a discussion list called NII-Teach and Bonnie will be one of the moderators. I urge you all to subscribe and let Bonnie know what you are doing, thinking, and feeling about creating the information infrastructure for the education community. What follows is a description more of a dynamic way of teaching than an actual discussion of the Jason Project. KMR]

I had the pleasure of introducing a very mixed group of learners to the Jason Project. What I like about a project like this is that I can teach it plain, teach a portion of it , if I have only one subject area from which to teach, use it as ideational scaffolding on which to construct a magnificent learning experience.

My class(the group I took to Jason) is a group of 33. There are 8 special education students, 8 English as a second language students, and 16 of my students including one of the special ed are categorized as GT. The others are well students. I teach to them all.

We prepared for Jason using " Amazon Trail " from MECC, and "Rainforest Rap" fom WWF, and "In the Spirit of the Rainforest" and Flooded Forests of Belize in addition to the lessons scripted by the NSTA. This was an awesome experience.

My first lesson was to do an idea map of the rainforest. Write the word and link your ideas. That I saved. Then we looked at " Tropical Rainforest" STV by National Geographic. I used old National Geographics and we cut them up and created three murals, one of Maya, one of Coral Reefs , and one of Neotropical Rainforest animals. We also have posters from the rainforests of the world. Next we used the laser disc, viewing it straight for ideas for a minireport. STV is a laser videodisc which you can use to create your own curriculum shows with. One we really liked was on the " Leaf Cutter Ants", and the Baslki Lizard". Using a laser pen you can access the bar code and send a message to the laser and create a visual report. There is a Spanish track and we used it on occasion.

The students learned the classifications for vertebrate and invertebrate classifications. We selected one organism from each to read and think about. Later we wrote minireports on vertebrate animals. I used classify plants to teach them the taxonomic ways of identifying plants, and we also used classify mammals to learn about that particular group.

In the meantime, we used Prodigy, locating a lesson from the NGS archives to learn about the rainforest. Other students on the computers, were researching the Coral reef, or studying the Amazon trail. This is program by MECC, it is reading , it is hard, I thought but the kids taught each other.,I was the only one who did not have much access to it. Sometimes they would let me fish... but the important details, were taught using peer group tutors.

I got PBS Leraning Links, and went into the global classroom and downloaded lessons and ideas.

These were our originals:

REEFS
We invited a scuba diver in to show us the tanks and the equipment. I brought in the snorkeling equipment. We also used the video from our curriculum on Voyage of the Mimi 2 about " the Incredible Shrinking Head" atmospheric pressures.

A student in the class from Jamaica was found who knew the information on the reefs, and I borrowed samples of coral from the ROCK DOC Hal Banks at the Smithsonian. We compared and contrasted 4 different types of coral. Later after viewing a video on a coral reef, we drew our own coral reefs.

RUINS
We studied using the Voyage of the Mimi. I have been to Uxmal, and to Chichen Itza , as well as one of my students. We did ethnobotanical studies of plants(My mother is a florist) and we ate our way through fruits and vegetables that are grown in the area now. Some student groups created a database using the shape, size color, description, some created a chart similar to ESS rocks and charts. While they were doing their research, I cooked Belizean dishes This lesson was interesting.

CAVES
We studies rocks and minerals at the beginning of the year, students wrote e-mail asking people about experiences in caves. I had a friend who caves and he shared experiences. I had drawings from a class of students had taken to the Luray caverns. We read about caves, used clay to create shoebox caves, and viewed a movie on the Luray Caverns and decided to go there. We did test some cave pearls, and fried eggs, and other interesting rock samples from the rock doc.

As we did all of this we were doing leaf cutter ant math, they LOVED it. (That was a lesson)

They loved creating a rainforest bridge out of 20 popsicle sticks and 6 paper clips. They wanted to make ont to go across the creek near the school to test it ith real people instead of a soup can. That was the engineering part of it. We kept diaries and kept logging onto the Learning Links to see what the new information was. We began to create poetry, cinquains, haiku,and acrostics.

(See **Bonnie**, *page 16)*

GOPHER

The California Department of Education Gopher Server is Up and Running

Recently, the folks at the California Department of Education (CDE) put up a gopher server that offers K-12 explorers some worthwhile adventures.

The server can be reached by gophering to "goldmine.cde.ca.gov" (165.74.7.50). Or from your system gopher menu chose,

```
Other gophers/
    North America/
        California/
            CA Department of Education/
```

The CDE gopher server project is is part of the National School Network Testbed Project, an NSF-funded project conducted by Bolt Beranek and Newman, Inc. (BBN).

The categories of CDE public information now online with search capabilities are as follows:

1994 Calendar of K-12 Conferences
Advisories
Charter Schools
Curriculum
Directories
Finance
Legislation
News and Announcements
Publications
Special Education
State Board Highlights
Technology Planning Guide

Other K-12 outside resources can be accessed from the main menu by going to the BBN server directory, California School Districts and Other Information Services.

Here's a gopher search I did using the CDE gopher. From the Main Menu of the Gopher which follows I selected the BBN server directory.

```
California Department of Education

   1. About this Gopher.
   2. California Department of Education - general info/
   3. California School Districts/
   4. Daily Report Card News Service/
=> 5. BBN's National School Network Testbed/
   6. Other Information Services/
```

```
BBN's National School Network Testbed

    1. Welcome to BBN's National School Network Testbed.
    2. Copernicus Internet Server.
    3. National School Network Testbed/
=>4. K-12 on the Internet/
    5. Curriculum resources/
    6. General information resources/
    7. Software libraries/
    8. AskERIC/
    9. Internet information/
    10. State resources/
    11. Federal resources/
    12. Other Gopher and Information Servers/
    13. Search titles in Gopherspace using veronica/
```

```
K-12 on the Internet

--> 1. Best of K-12 on the Internet (from TIES, Minn.)/
    2. Acceptable and Unacceptable Uses of Net Resources (K12)/
    3. Consortium for School Networking (CoSN)/
    4. Empire Internet Schoolhouse (NY State)/
    5. Global School House/
    6. Geometry Forum/
    7. Educational BBSs/
    8. Schools/districts on the Internet/
    9. Colleges of Education/
    10. Daily Report Card/
    11. CICNet K-12 Gopher/
    12. The Hub (TERC)/
```

```
Best of K-12 on the Internet (from TIES, Minn.)

--> 1. Current K-12 Information (postings from Selected Ed List-servs)/
    2. Russian Far East Exchange + (KAMCHATKA: A Live Satellite Telecast)/
    3. The Space Science and Engineering Center (Global Satellite Images)/
    4. WOLF STUDY PROJECT/
    5. Bosnian/Croatian Exchange Project /
    6. Reports from McMurdo Station, Antarctica/
    7. SELECTED PICTURES,QUICKTIME MOVIES & SOUNDS/
    8. CNN newsroom classroom guide/
    9. Project Central America/
    10. Dictionary (Webster Server) <?>
    11. AfricaTrek!/
    12. ENVIROnet (login:ENVIROnet, Password:henniker) <TEL>
    13. Search All White House Information for ... <?>
    14. White House Information/
    15. Geographic Server <TEL>
    16. National Education BBS(NEBBS) & Supercomputer(NESP) Login:new <TEL>
    17. Newton Educational BBS (Login as cocotext) <TEL>
    18. Center for the Great Lakes Information Service./
```

The CDE server is still under construction and not every category contains information at this time. Comments and suggestions are welcome and should be sent to the System Administrator at: <Sfergus@goldmine.cde.ca.gov>

INFOBYTES

The MIT Program on Communications & Media Policy announces the availability of, "Future Schools: Connecting to the World" and Regional Workshops

Copies of the MIT/ARPA produced video, "Future Schools: Connected to the World." are available from Master Communications Group, 7322 Ohms Lane, Minneapolis, MN 55439, or dial 800-862-6164. The charge for each copy is $10.00 plus $5.00 for priority mail and handling or $2.50 for regular mail and handling. Quantity discounts are available for schools and institutions.

The MIT Program on Communications & Media Policy is also initiated a series of regional workshops for school superintendents on connecting schools to the network. The first workshop is scheduled for May 7, 1994 in Minneapolis. For more information on these workshops call Suzanne Neil at +1 617-253-4138 or send e-mail to: <cmp@far.mit.edu>

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ANNOUNCING APENGLISH-L

APENGLISH-L, the Advanced Placement English List, is a brand-new discussion group on the Internet! APENGLISH-L serves as a forum for Advanced Placement English Teachers around the world. The listing will hopefully provide a vehicle for the sharing of lesson plans, etexts, curriculum concerns, and approaches to new works.

New subscribers are welcome. To join the group, send a message to:

APENGLISH-L-REQUEST@adler.mec.mass.edu

In the body of the message, type:

SUBSCRIBE APENGLISH-L
YourFirstName YourLastName

APENGLISH-L runs on PMDF Mailserv v4.2 software on a vax/vms system at the Merrimack Education Center in Chelmsford MA.

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Email: taverill@a1.mec.mass.edu

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USNONPROFIT-l — A Listserv for Non-Profits Is Established

The USnonprofit list is a discussion group for issues facing nonprofit organizations.

Topics addressed will include: what issues are faced by nonprofit groups today; what specific issues are the people in the less-advantaged sectors of society wrestling with today; how can technology (and in particular, telecommunications) help them deal with these issues, in particular, how can this technology help them help themselves; what are some effective volunteer recruitment and management techniques; fundraising project issues; grants resources; questions of how nonprofits can more involve the business sector in eg., partnerships with nonprofits as well as specific outreach programs; the role of nonprofit agencies as Regional Information Centers on the Internet, and how this affects traditional roles; synergies between nonprofits and community networks.

To subscribe, send e-mail to:
< majordomo@rain.org>
in the message, type : subscribe usnonprofit-l (no name necessary)

messages to the list go to:
< usnonprofit-l@rain.org>

USnonprofit-l is sponsored by the Santa Barbara RAIN Network in Santa Barbara, California. Send questions, comments and ideas to rain@rain.org

Moderators:
Madeline Gonzalez
< madeline@SPOT.COLORADO.EDU>

Tom Newman
< newmant@csos.orst.edu>

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SCHOLASTIC Announces A NII -TEACH

Scholastic Network, Scholastic Inc. created a new discussion list concerning the subject of the National Information Infrastructure and its role in education.

Moderators of the list are:
Bonnie Bracey, the Arlington, VA classroom teacher appointed to the NII Advisory panel
Leni Donlan of CoSN (the Consortium for School Networking)
Jane Coffey, a teacher-member of the Scholastic Network.

This list will only be on-line from March through June 1994.

To subscribe to NII-TEACH, send email to:
<NII-Teach-request@scholastic.com>

Leave the subject line blank. The text of the message should say:

<subscribe NII-Teach> yourfirstname yourlastname

For more information please send email to: Shirley Hanein-Lane, NII-Teach Manager, at <shirley@scholastic.com>

(NTN Editors note: According to Shirley Hanein- Lane, Scholastic has opened this listing all interested persons, and you need not have an account with AOL or the Scholastic Network)

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INFOBYTES

MAVEN 2.0a1.1.sea bin Available from CNIDR

Free copies of Maven, a real-time Internet audioconferencing software for the Macintosh, is now available via anonymous ftp from

<k12.cnidr.org>

ftp://k12.cnidr.org/pub/Mac/Maven-2.0a11.sea.bin

To suubscribe to a discussion list about Maven, send e-mail to:

<listserv@cnidr.org>

Leave the Subject: line blank, and in the message type:

subscribe maven Your Name

where Your Name is the name you wish to appear on the subscribers list.

* * *

Editor's Note–A future issue of NTN will contain a feature article on CNIDR or the Clearinghouse for Networked Information Discovery and Retrieval.

CNIDR is actively promoting the use of networked information discovery and retrieval tools. Most recently, CNIDR has played a primary role in the Global Schoolhouse Project providing technical support and assistance in the use of advanced Internet tools. For more information about CNIDR projects and information resources, send e-mail to:

<info@cnidr.org>

Anonymous ftp archies:

<ftp.cnidr.org>

Gopher access:

<gopher.cnidr.org>

Dr. Seymour Papert, Keynote Speaker at the Peddie School In June

Dr. Seymour Papert, author of ***Mindstorms*** and ***The Children's Machine*** will deliver the keynote address for the week-long 1994 Peddie Summer Institute (PSI) on Monday, June 27th. Some 60 K-12 educators and librarians from around the country will come to the 2nd Institute to explore uses of technology in schools. PSI features four seminars including "The Electronic Scholar" and "Surfing the Internet in the Classroom". Faculty and administrators will be able to take advantage of Peddie's considerable resources to develop experience and skills to take back to their schools.

For further information about the Institute, please contact
Administrator Carol Topchik at
tel. +1 609- 490-7555;
e-mail <ctopchik@dmctps.das.net>
or write to
PSI, The Peddie School Hightstown, NJ 08520

Version 1.01a of CELLO is Now Available

The Legal Information Institute of Cornell University announced the release of version 1.01a of Cello, an Internet browser for MS-Windows.

The new version is available from ftp.law.cornell.edu in the /pub/LII/Cello directory.

Cello is a multipurpose Internet browser which permits you to access information from many sources in many formats. It is a WWW client browse.- To run Cello, you need the files in the CELLO.ZIP archive, plus a winsock package. Cello works with all of the popular Winsock packages, although some trouble has been reported with certain implementations (see the README in the ZIP archive). A direct connection to the Internet or or a SLIP or PPP connection is required, depending on which of these your Winsock package supports.

Cello runs on any hardware with a 386SX chip or better. A minimum of 4 MB RAM is recommended. A video driver which supports 256-color opera-tion is required.

YOUNG AUTHORS

YOUNG AUTHORS is a new electronic journal which intends to publish works by world-wide authors in middle, junior high, and high school (generally ages 11-18).

The editors of YOUNG AUTHORS are soliciting original works in any genre or form; there are no limitations. The editors will work with authors whose work receives a favorable review but may need some revision before publication. CASH PRIZES will be awarded to the top three works published in each journal issue. All published authors, and their school library, will receive a hard copy of the journal issue.

The electronic version will be widely distributed on the Internet.

The editors plan to publish 5 times per year; however, final decisions will be determined by the response to each call for manuscripts.

SUBMISSION DEADLINE: Authors' works are accepted at any time. Each issue has a deadline for submission. The first issue will be out in April. Future Issue dates: July 31 and November 30. An electronic submission is preferred.

For further information about submission requirements contact, Jamie Meyers, 260 Chambers, Penn State University, University Park, PA, 16802, USA. Send e-mail to:
<JMM12@psuvm.psu.edu>
Fax: Jamie Myers
Tel. +1- 814-863-7602;

How to Connect to the Internet?–An FAQ

by Anthony Rutkowski <amr@isoc.org>

Many alternatives exist for connecting to the Internet depending on who you are and what you want to do.

It is important first to understand that the Internet consists of many networks of computers connected together. Each country typically has one or more na-tional public internet backbones which are connected to each other through a variety of global rrangements. At regional and local levels, there are tens of thousands of organizations of every conceivable kind that have built their own enterprise internets and connect them to the national backbones via a network access service.

Most of these second tier networks are operated by organizations that provide Internet access to their internal staff or specialize in providing widespread public access to end-users. There are basically two kinds of Internet end-user access provided:

◊ host access where end-users connect their computers to become part of the Internet, or

◊ terminal access where end users connect to a host computer which is directly connected to the Internet. The computer terminal itself is not directly connected.

◊ Lastly, many kinds of Email and on-line services provide gateway access for messages to their customers.

WHAT ARE MY BASIC OPTIONS AND REQUIREMENTS?

1. Network access assumes you have a LAN or WAN that support TCP/IP protocols. Such networks are generally owned and maintained by organizations to tie together their information re-sources and support host and terminal access. The chief option is usually the bandwidth of the access (e.g., from 14.4 to 1500 kbit/s). The customer must also acquire the circuit to the Internet access provider's point of presence. Some providers allow resale of the access service to third parties or the public.

2. Host access assumes you have a computer and software that can sup-port TCP/IP protocols and potentially provides the full range and power of Internet services limited only by the capability of your computer. Although very good, easy to use software has recently bec-ome available even for PCs and Macs, host access Internet connection generally presume a modicum of computer literacy. The primary options are generally the me-thod of access (such as attachment to a Local Area Network, local dialup, 800 dialup, ISDN, or CATV data service), protocol supported (e.g., SLIP, CSLIP, or PPP), and POP server services.

3. Terminal access assumes only that you have a computer with a modem and simple "asynchronous" communications software that allows operation as a terminal. The primary option is generally the kinds of services provided (e.g., generally primarily Email, and may include FTP, Telnet, or text-based Gopher services to the provider's host computer). Binary files can only be moved to your computer through additional file transfer steps or encoding schemes.

4. Gateway access assumes only that you have the ability to use the services of a particular Email or on-line services provider - however it is done.

HOW DO I GET CONNECTED?

◊ Choose the type of access that best meets your capabilities and needs as described above.

◊ Find the access providers that serve your area and determine services, costs, and support that meet your requirements. A provider list is available upon request from the Internet Society.

◊ Obtain the necessary software for your computer system and your selected access service. Network and host access require TCP/IP software. Terminal or gateway access generally require only common asynchronous communications software. Some gateway access providers may have their own proprietary software. A software list is available upon request from the Internet Society.

HOW DO I GET MORE INFORMATION?

Many excellent reference and guide books on the Internet, its technologies and applications have become available in bookstores and libraries. Some also include basic software. Periodicals are also available by subscription. The Internet Society's membership publications and conferences provide current comprehensive information and notices about a broad range of worldwide Internet developments.

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FAQ 94-005 v.1.0

A Partial Directory of Internet Host and Terminal Access Providers

Country

Local Area
Provider
Area Codes
Phone Nos.

Australia

Melbourne, Sydney
connect.com.au pty ltd
+61 3, +61 2
+61 3 5282239

Canada

Montreal
Communications Accessibles Montreal
514
514-931-0749

Ontario, Canada
HookUp Communication Corporation
800, PDN, 416, 519
519-747-4110

Edmonton
PUCnet Computer Connections
403
403-448-1901

Toronto
UUnorth
416, 519, 613
416-225-8649

Germany

Germany
Individual Network e.V. (IN)
+49
+49 21 31 64190

Frankfurt, Offenbach
Individual Network - Rhein-Main
+49 069
+49 69 39 048413

Ruhr
INS - Inter Networking Systems
+49 23
+49 2305 356505

Greece

Athens
Ariadne - Greek Academic and Research Network
+301
+301 65-13-392

United Kingdom

London
Demon Internet Systems (DIS)
+44 (0)81
+44 (0)81 349 0063

London
UK PC User Group
+44 (0)81
+44 (0)81 863 6646

London
The Direct Connection
+44 (0)81
+44 (0)81 317 0100

USA

San Francisco
a2i communications
408, 415
408-293-8078

Portland
RainDrop Laboratories
503
n/a

Alaska
University Of Alaska Southeast, Tundra Services
907
907-465-6453

Providence
Anomaly - Rhode Island's Gateway To The Internet
401, 508
401-273-4669

Montana
Big Sky Telegraph
406
406-683-7338, 800-982-6668

Houston
The Black Box
713
(713) 480-2684

Washington DC
CAPCON Library Network
202, 301, 410, 703
202-331-5771

Washington DC
Clark Internet Services, Inc. (ClarkNet)
202, 301, 410, 703
800-735-2258 then 410-730-9764

California-USA
Cooperative Library Agency for Systems and Services
310, 415, 510, 619, 714, 818, 800

Denver
Community News Service
303, 719, 800
719-592-1240

North Carolina
CONCERT-CONNECT
704, 919
919-248-1999

San Diego
CTS Network Services (CTSNET)
619

Calif., Arizona, Georgia, USA
CR Laboratories Dialup Internet Access
213, 310, 404, 415, 510, 602, 707, 800

Denver
Colorado SuperNet, Inc.
303, 719, 800

San Diego
The Cyberspace Station
619
n/a

Boston, KS City
DELPHI
617, PDN
800-544-4005

California
DIAL n' CERF or DIAL n' CERF AYC
213, 310, 415, 510, 619, 714, 818
800-876-2373 or 619-455-3900

USA
DIAL n' CERF USA
800
800-876-2373 or 619-455-3900

New York
Echo Communications
212
212-255-3839

Seattle
Eskimo North
206
206-367-7457

Arizona
Evergreen Communications
602
602-955-8315

Washington DC
Express Access - Digital Express
202, 301, 410, 703, 714, 908

USA
Dayton
Freelance Systems Programming
513
(513) 258-7246

Seattle
GLAIDS NET
206
206-323-7483

Continued on page 10

A Partial Directory of Commercial Providers in US (continued from p 9)

Seattle
Halcyon
206
206-955-1050

Berkeley
HoloNet
510, PDN
510-704-0160

Rhode Island (northern)
The IDS World Network
401
401-884-7856

San Francisco
Institute for Global Communications/IGC
415, 800, PDN
415-442-0220

Phoenix, Tucson
Internet Direct, Inc.
602
602-274-0200, 602-324-0200

The John von Neumann Computer Network - Tiger Mail & Dialin' Terminal
800
800-35-TIGER, 609-897-7300

Northeast USA
The John von Neumann Computer Network - Dialin' Tiger
201, 203, 215, 401, 516, 609, 908
800-35-TIGER, 609-897-7300
Los Angeles
KAIWAN Public Access Internet Online Services
213, 310, 714
714-638-2139

New York
Maestro
212, 718
212-240-9600

Chicago
MCSNet
312, 708, 815
312-248-UNIX

Dallas
Texas Metronet
214
214-401-2800

Michigan, Washington DC, Boston, USA
Merit Network, Inc.
313, 517, 616, 906, PDN
313-764-9430

Millennium Online
PDN
800-736-0122

New York
MindVOX
212, 718
212-989-2418

MI (southeast)
MSen
313
313-998-4562

New Hampshire
MV Communications, Inc.
603
603-429-2223

Boston
NEARnet
508, 603, 617
617-873-8730
major metro areas
Netcom Online Communication Services
206, 213, 214, 303, 310, 312, 404, 408, 415, 503, 510, 617, 619, 703, 714, 718, 818, 916
408-554-8649, 800-501-8649

Boston
North Shore Access
617, 508
617-593-3110

Boston
NovaLink
508, 617, PDN
800-274-2814

Huntsville
Nuance Network Services
205
205-533-4296

Houston
South Coast Computing Services, Inc.
713
713-661-3301

Seattle
Northwest Nexus Inc.
206
206-455-3505

Ohio areas
OARnet
614, 513, 419, 216, 800
614-292-8100

Colorado Springs
Old Colorado City Communications
719
719-632-4848, 719-593-7575 or 719-636-2040

Seattle
Olympus
206
206-385-0464

New York
PANIX Public Access Unix
212, 718
212-877-4854

USA
New York
The Pipeline
212, 718
212-267-3636

San Jose
The Portal System
408, 415, PDN
408-973-9111

Champaign-Urbana
Prairienet Freenet
217
217-244-1962

Philadelphia, Pittsburgh, Harrisburg
PREPnet
215, 412, 717, 814
412-268-7870

Major metro areas
PSI - PSILink - Personal Internet Access
[many], PDN
703-620-6651

Major metro areas
PSI - World-Dial Service
PDN
703-620-6651

Austin
RealTime Communications (wixer)
512
512-451-0046

Houston, New Orleans
NeoSoft's Sugar Land Unix
504, 713
713-438-4964

Portland, Beaverton
Teleport
503
503-223-4245
Pittsburgh
Telerama Public Access Internet
412
412-481-3505

San Jose
TelLink Networking
408, 415
408-247-8445

Washington DC
The Meta Network
703, 202, 301, PDN
703-243-6622

most metro areas
UUNET Technologies Inc
{many}
703-204-8000, 800-488-6384

Charlotte, Raleigh-Durham
Vnet Internet Access, Inc.
704
704-374-0779

Sausalito
The Whole Earth 'Lectronic Link (WELL)
415, PDN
415-332-4335

(See Directory, next page)

Directory
(continued from p.10)

Cleveland
APK- Public Access UNI* Site
216
216-481-9428

Boston
The World
617, PDN
617-739-0202

Norfolk, Williamsburg
VA
Wyvern Technologies, Inc.
804
804-622-4289

****

PDN = X.25 Public Data Network Service (provides global access with traffic charges)

References: Peter Kaminsky, ***Pdial***, Aldea Communications, SRI International (PDIAL or the Public Dialup Internet Access List is compiled by Peter Kaminsky and widely distributed on the Internet)
The Internet Society is not responsiable for errors or omissions.
The Internet Society is not responsible for errors or omissions.

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Additional References:

Connecting to the Internet by Susan Estrada, O'Reilly & Associates, Inc. Sebastopol, Ca. 1993 (See pages, 105-146)

The Internet Navigator: The Essential Guide to Network Exploration for the Individual Dial-Up User by Paul Gilster, John Wiley & Sons, Inc. New York, 1993. (See pages 415-430)

The Electronic Book Store

The Digital Information Infrastructure Guide (DIIG)

The Research Program on Communications Policy at the Massachusetts Institute of Technology has released The Digital Information Infrastructure Guide (DIIG). DIIG is a resource to facilitate the development of the National Information Infrastructure (NII). It is intended to provide government, business and academic leaders with easy access to information about current research project(s) and critical public and private initiatives being developed for tomorrow's information infrastructure. Specifically, DIIG documents research conducted by NII stakeholders and models the interaction between NII stakeholders and their interests. DIIG will provide an invaluable impartial data resource for coordinating and guiding the development of the National Information Infrastructure.

DIIG is available in "gopherspace" and in World Wide Web "hypertextspace".

If you have a WWW client (e.g. Mosaic), open URL
http://farnsworth.mit.edu/

If you are using a gopher client (e.g. Turbogopher), point it at
farnsworth.mit.edu (Port 70)

Highlights of DIIG:
- A collection of profiles of 37 NII-related projects and institutions.
- A collection of information from over 30 other NII-related projects.
- Links to NII information at 25 other gopher servers, including ACE, CPSR, CCN, EFF, HPCC, IITF, ISOC, NSF, NIST, NASA and InterNIC.
- A collection of legislation related to the NII (e.g. HR3636).

For more information about DIIG contact:
Russell Rothstein at <diig@farnsworth.mit.edu> or call +1-617-253-6828.

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TWO NEW REPORTS RELEASED FROM FARNET

Fifty-One Reasons How We Use the Internet and What It Says About the Information Superhighway

A Collection of fascinating stories about networking in education from those who should know — YOU.

Building Consensus/Building Models: A Networking Strategy for Change

This is the report of a project conducted by the Federation of American Research Networks (FARNET) and the Consortium for School Networking (CoSN). It discusses the role of networking in promoting systemic educational reform and is based on the consensus opinion of 70 educational decision-makers and practitioners from across the country.

For information, contact Laura McKelvy (FARNET) +1 617-860-9445

A Report from STATE'94

The Fifth Annual Conference of the Society for Technology and Teacher Education was held in Washington, D.C. from March 16-19, 1994. The Conference theme was Methods and Models for the 90s.

STATE is a coalition of teacher educators who are interested in the creation and dissemination of knowledge about the use of technology in teacher education. This includes effective approaches to teaching pre-service and inservice educators about educational technology. It is one of the five divisions/societies of the Association for the Advancement of Computing in Education (AACE).

The keynote speakers this year included Dr. Beverly Hunter of Bolt, Beranek, & Newman, Inc. (BBN); Edward Fitzsimmons, Special Assistant for Education and Training, Office of Science and Technology Policy, Executive Office of the President; and Linda Roberts, Director of Technology and Special Advisor on Technology, Office of the Deputy Secretary, U.S. Department of Education.

All three keynote speakers developed issues related to the development of an educational component to the National Information Infrastructure. Dr. Hunter, who was formerly the NSF Program Director for Applications of Advanced Technologies for Science Education discussed how teachers are already building the Information Infrastructure and discussed several projects that are creatively using information technology in pre-service and in-service education.

TeacherNet was one of the projects mentionned. It was developed in 1989 at the California State University in Long Beach by Dr. Jean M. Casey. The purpose was to "improve the student teacher experience, increase interaction between faculty and students, and enrich the quality of supervision and support." * Student teachers are provided with laptop computers and Internet access and during their sixteen weeks of teacher training use electronic communications with each other and their university supervisors.

Dr. Hunter noted that "inventing new institutions doesn't come easily," and urged that the community of Internet educator explorers work together to legitimize their individual and collective efforts, make their work cumulative and widely disseminated, and work together to build a scalable, open, client-server, user-constructed distributed knowledge system.

Ed Fitzsimmons of OSTP called for a second revolution and the use of information technologies to transform and make more viable the US educational system. He indicated that the estimated public school's annual budget is $200-215 billion and that only .025% is spent on R&D. This is in sharp contrast to US industry which spends some $200 billion per year on training and education.

Linda Roberts called on all teachers—in the classroom and in the universities to become more proactive and to promote the creative use of information technologies to break down the many walls in education. Any discussion of systemic reform must include a discussion of the role of technology. She cautioned that "if all that we're doing is more of the same, we shouldn't be doing it." The ultimate goal should be to connect classrooms and not just schools, and there must necessarily be some focus on professional development and changes in the way teachers are taught to be teachers. Technology be an essential part of educators' professional tools.
There were numerous sessions during the four days wherein many exciting projects and significant issues and concerns were discussed. For anyone interested in current research into the uses of technology in teacher education, I recommend the Technology and Teacher Education Annual, 1994 (These Proceedings are 806 pages and laborious reading but worth it for those with a serious interest) and can be obtained from:

AACE, P.O. Box 2966, Charlottesville, VA 22902, USA; tel. +1 804-973-3987; fax: +1 804-978-7449; e-mail <AACE@Virginia.EDU>
The cost is US$35 for AACE members and US$45 for non-members and an additional shipping fee.

I would only add that you should all visit the Teacher Education Internet Server that is a collaborative product of STATE, the University of Virginia, and the University of Houston. For the long way —

Other Gopher Servers/
North America/
USA/
virginia/
Teacher Education Internet Server/

You can telnet to <teach.virginia.edu>

The Internet address is:

<teach.virginia.edu>

Any questions can be addressed to Bernard Robin, Department of Curriculum & Instruction, University of Houston; tel. +1 713-743-4952; e-mail: <brobin@uh.edu>

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* *Teachernet: The Wave of the Future—Towards a National Network of Educators*" in the Technology and Teacher Education Annual, 1994 by Jean Casey and Mary Ellen Vogt. AACE 1994, pp. 677.

The Digital Calendar

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☆ **April 1994** ☆
☆☆☆☆☆☆☆☆☆☆☆☆

4 Apr **ELECTRONIC MEDIA '94 CONFERENCE** U.S. Department of Commerce Auditorium Herbert C. Hoover Building, Washington, D.C. Entrance: 14th Street between Constitution Ave. and E Street, NW. E-MEDIA'9 is sponsored by the IITF Government Information Working Group and the National Technical Information Service (NTIS). Confernce is free. For more information call: +1 703-487-4630.

4-8 Apr. **AERA (ENETSIG) Meeting in New Orleans Conference Theme: Aternative Learning Environments: Work, School, Play.** For AERA E-NET SIG: Contact Daniel Blaine, University of Hawaii at Manoa, USA . E-mail to <daniel@uhunix.uhcc.Hawaii.Edu> <daniel@uhunix.bitnet >

6-8 Apr. NET'94. **The National Net'94** Washington, D.C. Ronald Brown, Secretary of Commerce, will be the opening keynote speaker. Preliminary program details are available by gopher at educom.edu.

7-10 Apr **The New Learning Environment: Serving Diversity Through Technology** in Albuquerque, New Mexico. Sponsored by the National Eduation Association (NEA) and the Rocky Mountain Associaion for Technology in Education (RMATE). Inquires to: Libby Black, Director, Boulder Valley Internet Project Boulder Valley Public Schools & The University of Colorado at Boulder. e-mail: <black@bvsd.k12.co.us> ; tel: +1 303- 447-5090; fax: +1 303- 447-5024

14-16 Apr **NCCE 23rd Annual Conference,** Spokane Center, Spokane, Washington. The Northwest Council for Computer Education invites educators and school administrators to come see the latest hardware, software, technical publications, and related equipment in the academic environment. For information, write to NCCE'94, 1277 University of Oregon, Eugene, OR 97403-1277 USA

17-18 Apr **Fifth Annual Activating Children Through Technology (ACTT)** Conference; Macomb, IL; ACTT V, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; tel. +1 309-298-1634 (Joyce).

17-19 Apr **Educational Technology Institute, "The Road Map to School Improvement"**; Albuquerque, NM; NM State Department of Education, Celia Einhorn, Technology and Training, 10580 S. Hwy 14, Tijeras, NM 87059; tel. +1 505-281-1122; fax +1 505-256-1122; fax 505/256-4452; e-mail: <einhorn@apsicc.aps.edu>

18-24 Apr **Eighth International Conference of the European Schools Project, "Connecting the World"**; Amsterdam, The Netherlands; Pauline Meijer, Universiteit van Amsterdam, Grote Bickersstraat 72, 1013 KS Amsterdam, The Netherlands; tel. +1 31-20-5251248; fax +1 31-20-525-1211; E-mail: pauline@esp.educ.uva.nl.

23-24 Apr **Developing an Equitable and Open Information Infrastructure DIAC-94** Sponsored by Computer Professionals for Social Responsibility (CPSR) Massachusetts Institute of Technology, Building 10-250 Cambridge, MA

DIAC-94 is a two-day symposium dedicated to public interest issues related to the National Information Infrastructure (NII).

For more information on the conference or if your organization would like to become a co-sponsor or endorser contact Coralee Whitcomb, tel. +1 617-356-4309, e-mail. <cwhitcom@bentley.edu> or<Hans Klein, hkklein@mit.edu>

27-30 Apr **Technology and Innovations In Education (TIE) Eighth Regional Technology Conference;** Sioux Falls, SD; TIE '94, 1925 Plaza Blvd., Rapid City, SD 57702-9357; ph. 605/394-1876; fax 605/394-5315.

27-30 Apr **Eleventh International Conference on Technology and Education, "Deciding our Future: Technological Imperatives for Education"**; London, England; Tom Sechrest, Conference Coordinator, The 11th International Conference for Technology in Education, University of Texas in Austin, P.O.. Box AA, Austin, TX 78713 USA; tel. +1 512-471-4080; fax +1 512-471-8786.

27-29 Apr. **The Distance Education Research Conference** presented by Texas A & M University and St. Philip's College in San Antonio, Texas. Inquiries to: Dr. Karen Murphy, Conference Chair, Educational HRD, Texas A & M University, College Station, Texas 77843-3256; tel: +1 409-845-3016; fax: +1 409-845-0409

29-30 Apr **Virginia Society for Technology in Education (VSTE) Annual Conference;** Wintergreen, VA; Dr. Daniel Arkin, Executive Director, Virginia Society for Technology in Education, University of Virginia, Curry School of Education, 405 Emmet Street, 287 Ruffner Hall, Charlottesville, VA 22903; tel. +1 804-320-3424; e-mail: <vste@virginia.edu>

☆☆☆☆☆☆☆☆☆☆☆
☆ **May 1994** ☆
☆☆☆☆☆☆☆☆☆☆☆

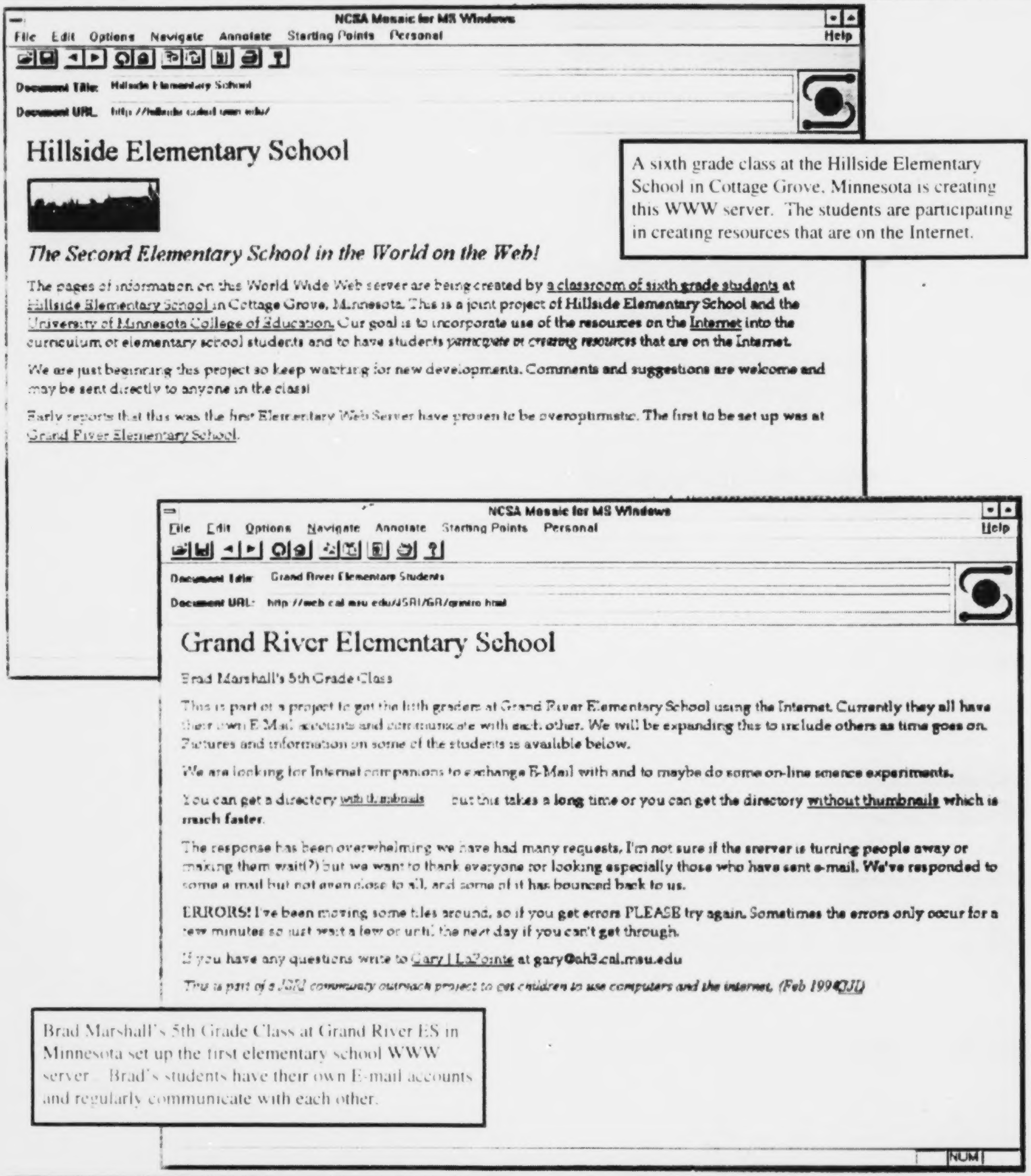
1-6 **Third East/West Invitational Seminar on NewTechnologies in Education.**Attendance is by invitation only. For information contact, International Technology Exchange, Box 49, Bloomfield, CT 06002; fax. +1 203-242-7002; e-mail <USA.budapest@uhavax.hartford.edu>

11-14 May. **CADE'94 CONFERENCE: Distance! Quelle Distance?** The 1994 conference of the Canadian Association for Distance Education will be held in Vancouver, B.C., Canada. Inquiries about the conference can be directed to CADE '94, Centre for Distance Education, Simon Fraser University, Burnaby V5A 1S6 BC., Canada; tel +1-604-291-3524; fax+1-604-291-4964; e-mail: <Heather_Persons@sfu.ca>

☆☆☆☆☆☆☆☆☆☆☆
☆ **June 1994** ☆
☆☆☆☆☆☆☆☆☆☆☆

13-15 June **NECC'94. Recreating the Revolution.** Hynes Convention Center, Boston, Massachusetts. For information, contact Donella Ingham, tel. +1 503-346-2834; e-mail: <donella_ingham@ccmail.uoregon.edu>

WHAT'S NEW IN K-12 MOSAICS?


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Personal Help

Document Title: Hillside Elementary School

Document URL: http://hillside.coled.umn.edu/

Hillside Elementary School

The Second Elementary School in the World on the Web!

The pages of information on this World Wide Web server are being created by a classroom of sixth grade students at Hillside Elementary School in Cottage Grove, Minnesota. This is a joint project of Hillside Elementary School and the University of Minnesota College of Education. Our goal is to incorporate use of the resources on the Internet into the curriculum of elementary school students and to have students participate in creating resources that are on the Internet.

We are just beginning this project so keep watching for new developments. Comments and suggestions are welcome and may be sent directly to anyone in the class!

Early reports that this was the first Elementary Web Server have proven to be overoptimistic. The first to be set up was at Grand River Elementary School.

A sixth grade class at the Hillside Elementary School in Cottage Grove, Minnesota is creating this WWW server. The students are participating in creating resources that are on the Internet.

NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Personal Help

Document Title: Grand River Elementary Students

Document URL: http://web.cal.msu.edu/JSRI/GR/grintro.html

Grand River Elementary School

Brad Marshall's 5th Grade Class

This is part of a project to get the fifth graders at Grand River Elementary School using the Internet. Currently they all have their own E-Mail accounts and communicate with each other. We will be expanding this to include others as time goes on. Pictures and information on some of the students is avalible below.

We are looking for Internet companions to exchange E-Mail with and to maybe do some on-line science experiments.

You can get a directory with thumbnails but this takes a long time or you can get the directory without thumbnails which is much faster.

The response has been overwhelming we have had many requests, I'm not sure if the srerver is turning people away or making them wait(?) but we want to thank everyone for looking especially those who have sent e-mail. We've responded to some e-mail but not even close to all, and some of it has bounced back to us.

ERRORS! I've been moving some files around, so if you get errors PLEASE try again. Sometimes the errors only occur for a few minutes so just wait a few or until the next day if you can't get through.

If you have any questions write to Gary J LaPointe at gary@ah3.cal.msu.edu

This is part of a JSRI community outreach project to get children to use computers and the internet. (Feb 1994JJL)

Brad Marshall's 5th Grade Class at Grand River ES in Minnesota set up the first elementary school WWW server. Brad's students have their own E-mail accounts and regularly communicate with each other.

BEST COPY AVAILABLE

NEWS FROM WASHINGTON

Applications for Grants Under the US Department of Education's Secretary's Fund for Innovation in Education, Fiscal Year 1994, Technology Education Program CFDA Number: 84:215C can be submitted until April 29, 1994.

Purpose of Program: To provide assistance to develop materials for educational television and radio programming for use in elementary and secondary education together with programs that use telecommunications and video resources for the instruction of public and private elementary and secondary school students and for related teacher training program for public and private school teachers. Telecommunications means the full range of technologies that can be used for educational instruction.

Eligible Applicants: State educational agencies, local educational agencies, institutions of higher education, private schools, and other public and private agencies, organization and institutions.

Estimated Available Funds: $1,000,000.

Estimated Range of Awards: $5,000 -$200,000.

Estimated Average Size of Awards: $50,000.

Project Period: Up to 36 months.

Budget Period: 12 Months.

Deadline for Transmittal of applications: April 29, 1994

To obtain an application package or for additional information concerning the program or application process, call Beverly Coleman or Adria White at +1 202-219.2116.

**Information about the Department of Education's funding opportunities including copies of application notices for discretionary grant competitions, can be viewed on the Internet Gopher Server at GOPHER.ED.GOV (Under announcements, Bulletins, and Press Releases.)

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Applications to the NTIA Telecommunications and Information Infrastructure Assistance Program (TIIAP) must be submitted by May 12, 1994.

Grants under the TIIAP will be awarded to support projects which most effectively:

1. Enhance the delivery of social services, such as education and health care, and

2. Support the formation of an advanced nationwide telecommunications and information infrastructure incorporating the widest variety of information technologies.

The TIIAP will provde matching grants to state and local governments, non-proft health care providers,school districts, librariers, universities, public safety services, and other non-profit entities. Grants will be awarded after a competitive merit review process and will be used to fund projects to connect institutions to existing networks and systems , to enhance communications networks and systems that are currently operational, establish new network capabilities, permit users to interconnect among different networks and systems, and bring more users on-line.

The TIIAP is highly competitive, with grant recipients required to provide matching funds toward the total project cost.

For a copy of the Guidelines for Preparing Applications and further assistance regarding the application procedure call +1 202-482-2048 or fax +1 202-482-2156. The deadline for submission is May 12, 1994.

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(Bonnie, *continued from p.4)*

But the best lesson was the field trip. We had learned using visual aids, and laser disk, and global links and now we were going to test our knowledge. On the same day we went to Jason, and to Amazonia. We raced up the metro steps through the raindrops to Jason(first in closest to the stage. We were up front behind a class of high school student maybe ten. We had learned lots. We knew all the answers and had done the quadrat study. the surprise was the use of Mosaic. At the time we went, we were the only class who had done the work so instead of 3 students participating, we had six. The highschooler drank sodas(forbidden, and went to the bathroom a lot) they didn't ask any questions, and seemed not to be interested. They were a little annoyed that there were little guys that knew a lot sitting behind them(they were from a rich academy school. At one point one of them turned around and said to the kids, at least we did not have to do the work. We didn't study...my kids shook their heads and ignored them. You should have seen the kids interacting and being " empowered " because they knew this stuff. One of the rainforest clips was from STV and was very close to a program we had made. It was great.

We ran again to the METRO and hauled for the zoo. We had 20 minutes to eat and then, to Amazonia. There was no division of Special edu, gifted etc.. we were all together and hyped... we had done a great job... and then to see the real things. You enter to a simulated rainforest with all the things posible to be in a simulation. The kids were so happy, pointing out plants, fish, animals. The adults present could not believe the knowledge of these children.

The students who had been on stage were told by the technician that they were using Mosaic to send their pictures and statements. It was great!! I only wished that the NGS and EDS had an electronic workshop for those teachers who wished to know about the technical side of the broadcast, and perhaps to demonstrate Mosaic.Perhaps with the NII monies available for grants, this component of training will be available next year.

What a celebration of learning!. What an empowerment of small children. They elected to spend the next day teaching to a classroom that did not use much of the electronic village. Real learner become teachers in very important ways.

[Editor's footnote—Just wait until Bonnie gets comfortable with Mosaic. She'll have those kids putting up their own WWW server. She has lots of enthusiasm, energy, and a genuine desire to learn and promote change through networking.]

Global Quest: The Internet in the Classroom

A big apology to my friends at NASA for not mentionning their excellent video, "Global Quest: The Internet in the Classroom" in last month's issue when we reviewed VIDEOS ON K12 NETWORKING.

In fact, Netteach News did first report on Global Quest in the November issue, Vol1, No.6 p.4.

The video is broadcast regularly on NASA Select TV and may be freely copied and distributed for educational use. A copy can be purchased for $18.50 from NASA's Central Operation of Resources for Educators (CORE).

For more information contact the CORE folks at:
NASA/CORE/Lorain County Vocational School, 15181 Route 58 South, Oberlin, OH 44074. Tel. +1 216-774-1051, ext. 293.

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages*.

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by Kathleen M. Rutkowski

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NetTEACH NEWS

Volume 2 , No. 1 The Newsletter for K-12 Networking Educators May/June 1994

NET-IMPRESSIONISM, DIGITAL GRAFFITI, AND AND THE NETWORKED SCHOOL

by Kathy Rutkowski <kmr@chaos.com>

The French Impressionists of the late nineteenth century--Renoir, Degas, Cezanne, Pissarro, Sisley and Monet -- sought to "convey" reality in new and exciting ways. The invention of photography in 1839 eliminated the need for artists to "copy" reality and freed new generations of artists such as the Impressionists to explore and investigate new artistic techniques. The Impressionists experimented with variations of color and sought to reveal reality in a sweeping sense rather than with any exhaustive attention to minute detail. They painted an interactiive scene or mood rather than a cold replication of landscape, and their intent was to "perceive" rather than portray.

Today Net-Impressionists are similarly seeking to "capture" virtual reality. The invention of packet-switching technology, powerhouse PCs, and internetworking protocols such as TCP/IP have basically eliminated constraints of time and space and freed Net-Impressionists to explore virtual worlds. The Net-Impressionist are building rich new interactive network-based learning environments and revolutionary hypermedia and hypertext network-based knowledge products such as MOSAIC for the Information Society.

Like the earlier Impressionist, the Net-Impressionist are viewed as different, strange and iconoclastic. Disparaging terms such as UNIX Weenie, geek, networking brahmin are often used in reference to Net-Impressionists. Net-Impressionist works are generally viewed with a sense of perplexment and sometimes outright resistance. Mainstream society fears that Net-Impressionism is a rejection of traditional values and norms of behavior and in the worst case a subversion.

Net-Impressionists do very little to correct these misconceptions and dispel unwarranted fears. Like all artists they are caught up in their creative moment. They tend to talk in vague generalities and avoid specificity when discussing societal impact.

Net-Impressionalism is not a unified movement. There are no rules and regulations nor is there a defined political or social agenda. Membership is open to anyone who has a desire and an ability to work with virtual worlds. Net-Impressionists for the most part are predominately solitary creative genuises who are united only in exploring new frontiers of human interaction, learning and knowledge formation made possible via virtual reality. However, there are now children who have joined the ranks of Net-Impressionalists.

Over a century ago, mainstream society similarly was outraged by the Impressionist and dismissed their art as worthless. It took a century of bolder, more provocative, and truly iconclastic experimentation in art for

(See **Net-Impressionism** *p2)*

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society to genuinely understand the true intent of the Impressionist and their unique contribution. The Pop artists and subway grafittist of the 1960s and 1970s sought to shock and outrage society into accepting a dynamic definition of art and aesthetics. Society responded in part by revisiting Impressionism and elevating it to a more revered status.

Digital graffittist are already appearing, and although insignificant in number, they are contributing to misconceptions and fears about electronic networking.Commercial electronic artists are also appearing who although not subversive or iconoclastic are more concerned with profit than with positive social impact.

Visionaries such as the Net-Impressionist often fail to realize the power of their visions. It is not that they do not understand the potential signficance of their work to society but rather that their concern is primarily aesthetic and not utilitarian.

A few weeks ago, I was involved in seminar on Networking in Education and the participants were asked to provide comments on the structure and content of the seminar. As I read through the many comments, the one that struck me as the most interesting and disturbing was one that a teacher wrote in regards to a demonstration of an Elementary School Mosaic Home Page.

This veteran teacher wrote: *"I have a concern—-with all the perverts in our world today, I question the activity the teacher did showing photos [of her students] and having them write something personal about themselves. I fear an activity of this sort opens up all kinds of possibilities that we don't want!"*

This teacher who wrote this note is an excellent classroom teacher who cares profoundly about her students. Although she is not yet an inveterate networking teacher she is not technology phobic and is a willing and eager user of new instructional technologies. I share her frank criticism to make the point that the time has come to legitimize the work of the Net-Impressionists. The process of legitimization must involve some critical peer and societal review.

In the final analysis, the Impressionist were right in their basic assumptions---details are not necessary to capture reality and impressions are "real". In the future, it is likely that Net-Impressionists will also be proved right in their basic assertion that virtual worlds are "real". It took almost a century for the Impressionist to be respected and understood. Hopefully, it will not take a century for the message of the Net-Impressionist to be translated into terms acceptable to mainstream society.

What is more signficant, however, is not the acceptance of Net-Impressionalism but the effective and responsible use of networks to transform education and society. The real challenge in the construction of networked schools and communities is not to deploy and distribute technology but to use this technology in an effective and meaningful way for a societal good. The value of networks will ultimately be utilitarian and not aesthetic.

The use will be determined by a compelling need which will most likely be to bring people together to communicate, cooperate, collaborate, and create for specific purposes.

Social intermediaries will legitimize the work of the Net-Impressionists. It will be their task to clearly state why virtual worlds are desirable in terms understandable by society, and finally to define the parameters of societal use of global networks and virtual world products.

In education, the most significant voices will be those of the practitioners--teachers in the classroom, media and technology specialists, and librarians. Parents, adminstrators, learners, and others from the community will also have a legitimate voice in the creation of networked schools and communities of virtual learners but it will be the practitioners that can best articulate the genuine constraints and barriers to change and the most effective use of technology in the process of learning and teaching.

Ultimately, everyone of us by virtue of our humanity will be called not only to legitmate the work of Net-Impressionist but also to join the Net Impressionist in the act of creation. From birth, we are all knowledge seekers and knowledge builders and the Information Age promises to acknowledge this as a compelling societal need as well as a legitimate occupation. .

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Unsolicited submissions are welcome and should be sent to the Editor.

Beyond Vision: Creating Strategies for Change

by Kathy Rutkowski

The topic of educational reform through the use of advanced technologies is "hot". You can't turn on your tv or turn the pages of a major metropolitan news-paper and not find some refer-ence to the "Information Super-highway" and what it can mean to education.

Recently, George Lucus , the Hollywood director, testified at a House Subcommittee session and revealed his vision of a new edutopia, and what role multimedia and networking technologies can play. (See Next Page)

In communities, across America there are pockets of activists working to transform schools from isolated islands of learning to global collaboratories of learners. The use of information technology is considered essential to this process.

There is considerable public money available through US government funding agencies such as the National Telecommunication and Information Agency (NTIA), the National Science Foundation (NSF), the Department of Education, and the Department of Agriculture for promoting networking projects and programs that aim to create new communities of learning. There is also considerable Foundation and corporate interest.

In this world of virtual reality practically everyone has an opinion of what a virtual school is and should look like but few are willing to discuss how to get from here to there and or the possible consequences of change.

Visions and visionaries are important because they offer us something to strive for but those who seek genuine change must be patient and willing to listen and learn from the voices that know best what kind of change is needed and is possible. I suggest that in education the most articulate voices are yours — the NetTeachers—-you best understand the constraints under which you must teach and children learn.

It is for this fundamental reason that NetTeach News was created to provide a place for educators with experience in networking to offer not only their vision of a better place of learning but also their practical agenda for change.

It is easy to condemn systems and to tear them down but far more difficult to draw out the wisdom of those who have come before and to incorporate some of that knowledge into our new designs.

Recall what a revolutionary George Lucus was when he decided to use an old and battered spacecraft for Hans Solo's ship in the Star Wars films. Previously, Hollywood had always used brand new space ships—state of the art starships like the Enterprise. Lucas challenged the notion that the future is pristine and perfect.

We can rest assured that the future will not be perfect.. We humans and the institutions we create are never perfect and pristine but always flawed. That is not to suggest that change is thus unimportant and futile but only that all change has consequences and that is the essence of risk-taking.

Those with visions who believe they can definitively make the world a better place are as dangerous as those who resist change at any cost to preserve their better place. . Change is necessary for the growth of individuals and social system but we cannot predict the impact of change and must be responsible in our implementation.

Those who seek responsible change must be willing to consider not only the positive consequences but also the potentially detrimental. We must ask ourselves hard questions and work together to find solutions.

Of course vision is important but so too is hard work. Technology can bring about remarkable change but only if humans are willing to lead the effort. We need to promote programs, action plans, and projects that use this technology effectively and responsibly for change.

As we introduce information technology into schools, the critical question we must constantly ask ourselves is how does this technology positively change the system of education, including the cultures of learning, teaching, and administrating.

The CoSN/FARNET Report, Building Consensus/Building Models: A Networking Strategy for Change (See p 6) concludes that

> *"Change will not be swift nor easy. ....However, the potential of networking to transform and revitalize education is a strong incentive for new ways of thinking."*

We have successfully legitimized the vision and now must legitimize action plans, projects, programs, policies and strategies for change. The time has come to move beyond our shared vision to the more difficult task of collaboration and cooperative effort. We must move beyond tendencies to compete and learn to work together to achieve our acknowledged common goal.

EDUTOPIA

by George Lucas

(The following constitutes the Written Testimony of George Lucas, Chairman, The George Lucas Educational Foundation on H.R. 3626 and H.R. 3636 Submitted to the Subcommittee on Telecommunications and Finance Committee on Energy and Commerce U.S. House of Representatives on March 7, 1994.)

My name is George Lucas, and as Chairman of the George Lucas Educational Foundation, I am pleased to submit this testimony. The Foundation was established in 1991 to facilitate the innovative uses of multimedia technologies in teaching and learning. Working with students, parents, educators, and business, community, and political leaders, we are developing an exciting vision for the future of education in this country. In this testimony I will describe our vision, and the telecommunications infrastructure that will be needed to support it. I will also explain how I see H.R. 3626 and H.R. 3636 supporting the development of that infrastru-cture.

I. Vision for Education: Edutopia

When you think back to your public school experiences, what do you remember? If you are like me, you found school somewhat frustrating. I remember being bored much of the time, except with a few teachers who engaged my curiosity and got me excited about learning. Those were the teachers I really loved, and I often resented the fact that there were not more like them.

Now that I understand the educational system better, I can see that there are many factors determining whether school is engaging or not. Teachers still play a central role, but there are also administrative and institutional barriers to developing an effective educational system, as well as legal constraints, the lack of a technological infrastructure, and, most importantly, a lack of common vision about what it is we want our children to learn. However, because I still hold on to my fundamental belief that children are naturally curious, self-motivated learners, I think it is incumbent upon us to devise ways to tap into that creative energy, and help students channel their excitement and ideas into productive educational experiences.

Today, many people–including teachers, parents, administrators, students, school board members, community members, and business leaders are wrestling with how to transform the educational system. Educators all over the country are rethinking the missions of schools and adopting innovative approaches to teaching and learning. Some are taking education out of the classroom and into the world; still others are experimenting with multi-age classes; others are looking at new forms of assessment. There are literally hundreds of experiments going on, and they are providing the sparks that will energize the evolution of education.

As the Foundation has looked at these efforts to transform schools and talked to hundreds of experts throughout the education community, we have begun to formulate a vision of what education in the 21st Century could be for students. Education is a lifelong endeavor, involving a cooperative process of gathering, interpreting, sharing, and applying information for personal growth and pursuit of individual and common goals. Some of its elements include:

1. A student-centered approach. Students' individual curiosity and motivation need to be supported, and personalized educational opportunities that meet the needs of each student must be developed

2. The family as an integral part of learning. Families, in all of their alternative forms, are the students first circle of information, support and motivation. In some cases this helps the student thrive; in other cases, it thwarts the students progress. The educational process must include ways for families to be a positive force in all children s learning.

3. Change in the role of teachers, from authoritarian subject matter experts to facilitators of the learning process. Teachers still need to be knowledgeable in various subject areas, in order to facilitate and motivate their students learning. However, their real gift is their ability to help students find the information they want, interpret and share that information, and apply that information to solve problems. They also need to help students develop the communication and cooperation skills they will need to learn with and from each other.

4. Communities–including local governments, non-profits, and businesses–are cofacilitators of learning for their citizens. More learning takes place outside the classroom, and community members need to contribute much more of their time to sharing their expertise and working with students and each other.

5. Schools are the gathering points of education. They are only one place where learning occurs, and they will be set up to facilitate the kind of learning previously described. There might be fewer classrooms as we know them today, and more work areas, more places for small groups of students to congregate, and more flexible scheduling. Teachers will work out of schools, but not always at schools. Schools will also be set up to serve the needs for life-long education in the community; students at various life stages will come to schools, not just young people ages 5 to 18.

6. Technologies play an essential role in the learning environment. Alongside the traditional colored blocks and construction paper, computer-based technologies are used for processing information, com

(See **LUCAS** *p 16)*

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Building Consensus/Building Models: A Networking Strategy for Change: A Consideration of the CoSN/FARNET REPORT

by Kathy Rutkowski

On October 28 and 29, 1993, more than 70 educational decision-makers and practitioners from across the country, and from all levels of the educational system, met near Washington, D.C. They came to discuss ways to support and promote school networking, and to formulate some recommendations for the National Science Foundation to use in establishing their funding priorities, goals, and evaluation strategies. The project was conducted jointly by the Federation of American Research Networks (FARNET) and the Consortium for School Networking (CoSN) and funded by the National Science Foundation.

Four weeks of on-line discussions, using the Internet, preceded the workshop. During these on-line discussions participants discussed school networking by considering access and connectivity, content and curriculum, training and user support, finance, and reform.

The two-day workshop built on the success of the on-line discussions and a broad consensus emerged which is reported in ***Building Consenus/Building Models: A Networking for Change*** published March 1994. What follows is a major summary of the report.

I. Areas of Consensus: A Reform Vision Supported by Networking

A. Change and the Information Age School

America's current educational system, which is largely based on the industrial-factory model, needs to be revamped to meet the needs and expectations of a knowledge-based society. Today's students need to learn how to find, process, evaluate, use. index, present and archive information using advanced information technologies. They must also cultivate a lifelong interest in learning and a high degree of adaptability and creativity. The schools must support a constructionist approach to learning that includes the use of advanced technologies now commonplace in the workplace.

In Information Age Schools:

- Learning occurs in collaboration, not isolation.
- Students are active architects of their own learning experiences.
- Educators are facilitators, innovators, collaborators, researchers, and electronic publishers.
- Advanced technologies are commonplace tools for educators and students
- Interior and exterior walls become transparent
- The Community actively participates in the formal education process
- All stakeholders, including practitioners and parents, play an active role in management decisions regarding instruction and technology.

B. Using Networks To Facilitate System Change

Networking by educators and learners facilitates desirable systemic change by encouraging new habits, and new cultures. Networking helps to "build" a new system rather than to merely "dismantle' an old and outmoded one.

Networks help to:

- ***build a new culture of learning*** where students are able to build their own learning environments.
- ***build a new culture of teaching*** where teachers learn with students using advanced technologies, conduct research, and publish
- ***build a new management system*** by improving channels of communications and supporting site-based management
- ***building new schools of learning*** *with transparent walls, that is where there is greater collaboration within as well as with the world outside*
- ***build a new educational technology system*** *that "enables" both teachers and students to seek and build knowledge*

C. Key Components of A Successful Systemic Approach

- Encourage partnerships
- Adopt training and user support as a major component
- focus on innovation and reform
- focus on educational need and purpose
- disseminate information about networking systems and applications
- demonstrate who funds and resources can be leveraged
- use open networking systems that can be scaled and replicated

For more information about the COSN/FARNET Report call Kathy Rutkowski at 703-471-0593 or send an e-mail message to: kmr@chaos.com

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Goals 2000 Information Found at AskERIC Virtual Library

The latest, most up-to-date information from the U.S. Department of Education pertaining to "The Goals 2000: Educate America Act" can now be found on the AskERIC Virtual Library.

The following documents, dated April 6, 1994, are in the Frequently Asked Questions (FAQ's) directory (number 3 on the Main Menu):

3. Frequently Asked Questions (FAQ's)
  1. Goals 2000 (April 6, 1994)/
    1. The Goals 2000: Educate America Act
    2. The Goals 2000: A Strategy for Reinventing Our Schools
    3. The Goals 2000: Fact Sheet
    4. Why We Need Voluntary National Education Standards
    5. Preparing Students for the High-Wage Jobs of Tomorrow
    6. Goals 2000: A World-Class Education for Every Child

To Gopher to the AskERIC site:

A. If you have Gopher: Gopher to ericir.syr.edu (port #70) or

1. Access the National Gopher System through:
   gopher.micro.umn.edu
2. Move through the following directories:
   Other Gopher and Information Servers/
   North America/
   USA/
   General/
   AskERIC - (Educational Resources Information Center)

B. If you don't have Gopher, telnet to a Gopher client on the Internet:

1. Telnet to ericir.syr.edu
2. Login as directed (usual login is: 'gopher')
3. Access the National Gopher System
4. Move through the directories as above.

To FTP to the AskERIC site:

1. Log into your local host, and invoke the FTP program.
2. Write ericir.syr.edu as the remote host computer name.
3. For username, enter anonymous
4. For password enter your email username (e.g. tomt@machine.edu)

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GINA TM

GINA TM (Graphical Interface for Network Access) is a software package designed to ease educators and others into the world of networked electronic information services by lowering the technical and economic hurdles associated with network access.

GINA offers access to the international electronic highway called the Internet. Services accessible through GINA include: electronic mail, conferencing, bulletin boards, databases, library catalogs, and other information resources.

Unlike other freeware/shareware products for Internet connectivity, GINA provides a common, high-quality interface across all these functions. Each function uses similar menus, toolbar, and other interface components, thus making it very simple for a individuals to learn how to use all the supported functions.

As well as improving the interface to the network, GINA raises the lowest common denominator for networked information transmission from ASCII files to fully formatted documents that may contain graphics, JPEG-compressed images, and fully-formatted text in multiple fonts. This is accomplished by the inclusion of an AdobeTM AcrobatTM Reader with every copy of GINA. This software package permits transmission of complex documents between software packages, and across operating system and hardware platforms.

Given the present lack of direct Internet connections in the K-12 educational environment, GINA is optimized for dial-up use through SLIP. The SLIP software is an integral component of the package, rather than being an add-on as it is for other current Internet tools. The package can also utilize direct connections to the Internet through such common Local Area Network systems as Ethernet and LocalTalk, where those are available.

GINA is available in both MS-Windows and Macintosh versions: delivered in a supported, "shrink-wrapped" format, complete with all required drivers and associated software. The simple installation tools minimize the problems associated with establishing network connectivity.

GINA consists of four main modules, presented as a single application, plus the Adobe Acrobat Reader:

* Authentication
* Electronic mail
* Conferencing
* Information

Features:

Multi-user design: The software is designed to permit sharing of a single Macintosh or PC by a number of users, for example in a lab environment. Each user is authenticated by means of a username and password, whether or not the system is currently connected to the

(continued on next page)

INFOBYTES

network. Each user's preferences, mail messages, and personal folders are stored separately, and used only when the user has been authenticated.

Off-line use: Since the software is designed to be used over dial-up connections, the electronic mail component can be used off-line to minimize connect-time, and thus telephone costs. Messages can be downloaded, and then read after the connection has ended. Replies and new messages can be composed off-line, and then mailed once a connection is made.

Address book: The mail address book represents Internet addresses as real names: (e.g. jones@sonoma.edu is shown as Frank Jones). Addresses from incoming mail are automatically added to the address book.

Dial-up use: Whenever possible, slow operations, such as downloading of long items, take place in the background, thus leaving the machine free for other uses while they take place, and minimizing the impact of slow- speed communications links.

Newsflash: The software has a feature that allows server administrators to display a message of any length at login-time.

License renewals: If notified by the server that a user's license is about to expire, the software will prompt the user for a credit card number, to permit on-line license renewal.

Hardware/system requirements:

Macintosh:

* System: 7.0 or later
* RAM: 4 MB minimum
* Hard disk: at least 2 MB free space
* 9600 BPS V.32 or better modem or
* Ethernet/LocalTalk IP connection
* Mouse

IBM compatible

* Microsoft Windows 3.0 or later
* 386 or 486 processor
* RAM: 4 MB minimum
* Hard disk: at least 2 MB free space
* 9600 BPS V.32 or better modem or
* Ethernet/LocalTalk IP connection
* Mouse

Technical specifications

GINA supports the following protocols:

* POP3 (for receiving mail)
* SMTP(for sending mail)
* NNTP (for NetNews)
* Gopher (for information access)
* Telnet (for remote logins)
* CSO/PH (for phone directories)

All these protocols follow Internet standards, thus ensuring full compatibility between GINA and existing information resources.

Servers

While the California Technology Project offers full network dial-up and central services in conjunction with purchases of GINA within California. It is also possible for sites to set up their own servers. These servers are based on a Unix platform, running standard TCP/IP software.

In addition to standard server software for the protocols listed above, GINA requires the presence of a specialized authentication server that handles such functions as user authorization, newsflash dissemination, license renewal etc. This server program will run on any standard Unix system, and is available at no cost from CTP.

A software-only version of the authentication server is available for Sun computers, or a complete 486-based software and hardware package will be available for purchase in Spring 1994 from CTP.

Licensing/Availability

GINA is being marketed in California at an educational cost of $40 annually, ($15 for GINA, $25 for CORE) plus $8.10 to cover tax, shipping, and handling. This price includes dial-up connectivity, a server account, and full support for California users.

For customers outside California, and for quantity purchases, GINA is available on a software-only basis by arrangement. Since GINA is client/server software, those users outside of California must have access to a GINA server, or wish to establish one.

Acknowledgments

GINA was developed by Microsoft Consulting Services. It incorporates code and protocols developed at the University of Minnesota. Additional components were provided by Apple Computer Inc., Peter Speck, NCSA, QPC software, and Hyde Park Software.

Ordering information

For more information or to place an order, please write: The California Technology Project, P.O. Box 3842, Seal Beach, CA 90740-7842.

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INFOBYTES

CU SEE ME NOW AVAILABLE FOR WINDOWS

CU-SeeMe W0.33b1 for Windows is now available free from Cornell University under copyright of Cornell and its collaborators. The beta version of CU-SeeMe for Windows provides a one-to-one connection or by use of a reflector, a one-to-many, a several-to-several, or a several-to-many conference depending on user needs and hardware capabilities. The beta version displays 4-bit grayscale windows at 160 to 120 pixels or double that diameter like the Mac version. The first PC version is a bit behind the latest Macintosh version but features like audio and the slide projector window will be added in the future. Like the Mac version, CU-SeeMe for Windows is intended to provide useful conferencing at minimal cost using an IP network connection.

System Requirements To Receive-Only

- 386SX processor or higher
- Windows 3.1 running in Enhanced Mode
- Windows Sockets compliant TCP/IP stack

A 256 color (8 bit) video driver at any resolution (640x480, 800x600, 1024x768, or higher)

System Requirements To Send and Receive

- 386DX processor or higher
- Windows 3.1 running in Enhanced Mode
- Windows Sockets compliant TCP/IP stack

A 256 color (8 bit) video driver at any resolution (640x480, 800x600, 1024x768, or higher)

- Video capture board* that supports Microsoft Video for Windows
- A video camera to plug into the video capture board

*The PC version is designed to use a VideoSpigot card from SuperMac but the Video Blaster from Creative Labs also works. With CU-SeeMe for Windows each participant can decide to be a sender, a receiver or both. And by use of a reflector, a user running the Windows version of CU-SeeMe can have a multiparty conference with users running any Mac version.

The required software is available on the server and all of the information needed to install and run the Windows version is available in the Read Me for Windows.

How To Obtain Cu-SeeMe For Windows Software
To obtain CU-SeeMe version W0.33b1 for Windows use anonymous ftp to gated.cornell.edu in the directory pub/video/PC.CU-SeeMeW0.33b1. Download the ReadMe file readme??.txt in text mode and the cuseeme.zip file in binary mode.

How To Subscribe To The CU-SeeMe Mailing List
The CU-SeeMe List was established for those with an interest in the software to keep up with developments and contact other CU-SeeMe users. To subscribe to the list, send a message to:

<listserv@cornell.edu>

In the main body of the message, write:

subscribe cu-seeme-l <first name> <last name>

(Please use your actual name.)

You will receive a confirming message with extensive instructions on use of the list.

You can send mail to be distributed to the list to:
<cu-seeme-l@cornell.edu>.

Please send comments and suggestions to: **<r.cogger@cornell.edu>**

Please send bug reports to:
<cu-seeme-bugs@cornell.edu>

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NEW RESOURCES FROM INTERNIC

InterNIC Information Services has released the INFOGUIDE (SM), the Scout Report news services, and an on-line hypertext version of the NSF Network News.

INFOGUIDE (SM) is a new online information server containing comprehensive information about the Internet and online Internet resources. The InfoGuide is accessible through gopher and the World Wide Web, and replaces the older InterNIC information server, the InfoSource. The InfoGuide includes new services such as the Scout Report and an online hypertext version of the NSF Network News.

InfoGuide offers an extensive list of pointers to online resources, Internet organizations, Internet access providers around the world, and current National Information Infrastructure information. The InfoGuide features an easy-to-use index which works just like a library card catalog. InfoGuide allows users to select indexes based on subject, title, or author, and follow hypertext links from those indexes to documents, images, sounds, video, or other gophers and World Wide Web sites. Future versions of the InfoGuide will offer enhancements to the indexing function and a section for more advanced, technically oriented users, such as system administrators and network programmers.

To access the InterNIC Information Services InfoGuide, point your World Wide Web client to:

http://www.internic.net

or your gopher client to:

is.internic.net

(See **Scout Report** *on page 11)*

INFOBYTES

The Scout Report is a weekly summary of highlights of new resources and news about the Internet.that will replace the net-resources mailing list, since it will make it even easier to stay current by placing selected announcements in one place each week for easy viewing.

The Report will be made available via electronic mail, gopher, and WWW. The electronic mail version will be distributed once every Friday via the scout-report@is.internic.net mailing list. This mailing list will replace the net-resources mailing list.

Those of you already subscribed to net-resources need *do nothing* – you will *automatically* be added to the scout-report mailing list and begin receiving the Report every Friday via that list, beginning next week. This week you will receive the report via the net-resources mailing list.

If you would like to un-subscribe from the net-resources mailing list, which means you won't receive the scout-report, send mail to:

listserv@is.internic.net

in the body of the message type:

unsubscribe net-resources

The Scout Report is offered as a service of InterNIC Information Services to the domestic research and education community and others who want to use the Internet effectively. Suggestions to the Scout Report are welcomed and encouraged, and can be sent to:

scout@internic.net.

*** Note that the net-happenings InterNIC mailing list will continue in its present form, serving the thousands of people who wish to receive the comprehensive mailings it provides. Major thanks to Gleason Sackman for doing such a great job as moderator of net-happenings.

The NSF Network News, InterNIC Information Services' bimonthly publication for the Internet community, is now available online in the InfoGuide. This World Wide Web version of the NSF Network News employs full text, graphics, and animation to provide an innovative, easy-to-use interface for its readers. The goal of the NSF Network News is to educate Internet users about network issues, resources, and tools; announce new and innovative uses of the Internet; and inform the Internet community about the activities of the InterNIC.

To access the hypermedia version of the NSF Network News, point your World Wide Web client to:

http://www.internic.net/

***InterNIC Information Services Staff provides information about the Internet and the resources on the Internet to the US research and education community under Cooperative Agreement No. NCR 9128749 of the National Science Foundation.

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WCU BOOKREAD is a network of students and teachers of literature, communicating by computer link-up with each other and with the authors of books they are reading in the classroom.

Western Carolina University MicroNet has been operating the BookRead Project since the spring of 1990. The purpose is to:

- encourage reading for pleasure
- promote cross-cultural understanding
- improve reading, writing, and word-processing skills

encourage use of telecommunications as a learning tool in the humanities

provide in-service education for teachers of literature and reading.

A traditional BOOKREAD project begins by choosing at least one partner school and deciding together what book(s) to read and discuss. MicroNet staff assist BOOKREADers establish partnerships, choose books, and link with authors who are available to talk about their work on-line.

One of the services BOOKREAD has provided to its participants is a matchmaker function that helps schools connect with each other. As a spin-off of our BOOKREAD project, we are now offering an Internet mailing list to make the matchmaker service more widely available: **BR_Match@wcu.edu**

The BR_Match mailing list will be an unmoderated list designed for the purpose of identifying others who wish to exchange Internet e-mail between k-12 school classrooms about literature.

WCU MicroNet will send welcome letters and post periodic reminder notices to the list describing WCU MicroNet services supporting BookRead participants with WCU MicroNet accounts.

Anybody may use the list to find one or more partner classes with whom to discuss literature. After a partnership has been formed, teachers in that partnership may choose either to use standard e-mail to discuss literature only with each other or subscribe to WCU MicroNet.

To find others with whom to begin a BookRead partnership, subscribe to the BR_Match list:by sending a message to:

mailserv@wcu.edu

In the main body, type:

subscribe BR_Match

Video Cameras and Kids: Primary Students Share HyperReports

by Mark Gillingham, Washington State University
<Gillingh@Vancouver.wsu.edu>

Molly was demonstrating a somersault while Sally was taking pictures (three per second), Kevin was demonstrating his water filtration system while Bryan was peering through the viewfinder of a camcorder, Danielle, who is blind, was taking a picture of a group partner, Crystal, while taking aural cues from the rest of her group. This was part of my experience in the third- and fourth-grade wing of an exurban southwest Washington state primary school in the spring of 1993. Because of a grant from the Murdock Charitable Trust, these children and their teachers were being introduced to still and video cameras.

The basic premise for use of cameras and other media in primary grades was to enhance reading and writing through comfortable, well known media (e.g., speech, song, drama, dance, and television). Since children don't differentiate modes of communication like adults do (they would rather sing an essay than write it) we allowed them to use media as they wished when writing for their peers and other audiences. This produced better engagement in creating reports, better writing, and better audiences of preliminary drafts and finished products.

Another premise of our introduction of video technology into this school was that teachers, like children, are not all alike. A greater emphasis was placed on what a teacher was already doing than in changing him or her. Because of this philosophy, teachers invented different ways to use the cameras. A third-grade teacher introduced the physical concept of light and shadow about the same time that she introduced her class to a Canon Xapshot still-video camera. Groups of children devised questions about light and shadow and experiments to answer them. Data were collected using the Xapshot. These data were incorporated into reports that were shared with peers in the class. This teacher reported learning as much about the value of group learning and problem solving as she did about the camera.

Another teacher was introducing his class to environmentally-safe cleaning agents at the same time as he was introducing a SONY camcorder. This marriage resulted in a video advertisement about a team of cleaners (group of students) who would clean your desk, sink, or other space with environmentally safe cleaning agents.

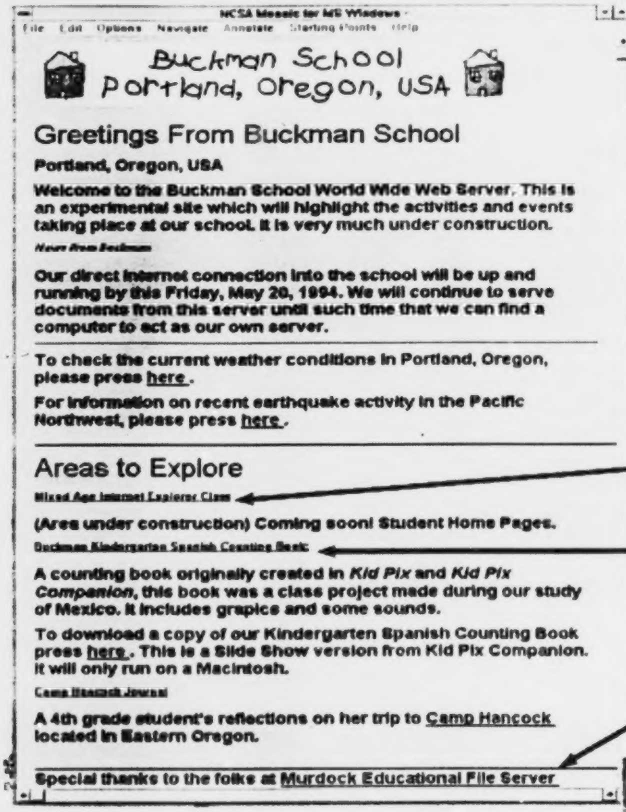
Later in the year the teachers took their students to a nearby forest to bring back pictures of plants, animals, and other artifacts that would add to their science projects. Some student groups were interested in how air pollution affected trees, others wanted to document the plants in the meadow, and others were interested in the cleanliness of the stream. The main components of these projects were planning, peer editing, implementation, revision, and reporting. Each group had 2 20-minute sessions in the forest a week apart. Reports were created in a special HyperCard stack that we called HyperReport. HyperReport allowed groups to write the textual part of their report on a series of cards. Any of the cards could contain a still picture (PICT file) or a QuickTime movie (MooV file) in addition to or instead of text. In the end, those groups who had better plans also had better HyperReports.

Some of the groups were able to share their HyperReports with other classes, other grade levels, and parents. Most of these reports were live--the group showed their work, discussed it with the audience, and answered questions. The final step was to reflect on their project and its presentation to improve them. Some of the students placed their reports on videotape by playing the computer screens into a VCR. These tapes are easy to share with parents and other community audiences. In the future, HyperReports will be shared with the community more widely through the use of a Gopher server and electronic kiosk. Gopher allows access to files of information on the internet even if you do not know what computer the information is on or even what the name of the file is. The Murdock Gopher at WSU Vancouver (daVinci.Vancouver.WSU.edu) is dedicated to disseminating HyperReports and the tools to create them. In addition, plans are being made to create a hypertext of existing reports by linking them together within a classroom and building. This hypertext could then be used by students to research aspects of their environment and get ideas for future HyperReports.

For further information about hypercard and current work by Mark, See ***Buckman Mosaic and the Metro Park Zoo*** *next page. Visit the davinci gopher. Gopher davincini.vancouver.wsu or from the Buckman Mosaic click on Murdock gopher. (Ediotr's Comment)*

Buckman School

URL:http://davinci.vancouver.wsu.edu/buckman/aboutbuckman.html


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Help
Buckman School
Portland, Oregon, USA

Greetings From Buckman School

Portland, Oregon, USA

Welcome to the Buckman School World Wide Web Server. This is an experimental site which will highlight the activities and events taking place at our school. It is very much under construction.

News From Buckman

Our direct Internet connection into the school will be up and running by this Friday, May 20, 1994. We will continue to serve documents from this server until such time that we can find a computer to act as our own server.

To check the current weather conditions in Portland, Oregon, please press here.

For information on recent earthquake activity in the Pacific Northwest, please press here.

Areas to Explore

Mixed Age Internet Explorer Class

(Area under construction) Coming soon! Student Home Pages.

Buckman Kindergarten Spanish Counting Book:

A counting book originally created in *Kid Pix* and *Kid Pix Companion*, this book was a class project made during our study of Mexico. It includes grapics and some sounds.

To download a copy of our Kindergarten Spanish Counting Book press here. This is a Slide Show version from Kid Pix Companion. It will only run on a Macintosh.

Camp Hancock Journal

A 4th grade student's reflections on her trip to Camp Hancock located in Eastern Oregon.

Special thanks to the folks at Murdock Educational File Server

Explorer Class

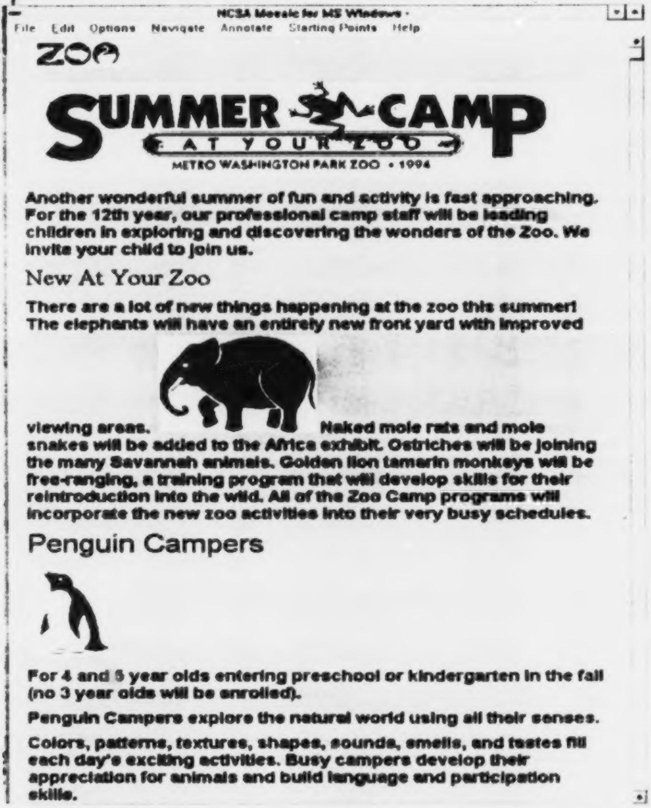
Spanish Counting Book

Murdock Educational File

Metro Washington Park Zoo

URL:http://davinci.vancouver.wsu.edu/zoo/zoo.html

Here's a Mosaic where you can register your kids for Summer Camp at the Seattle Metro Washington Park Zoo.


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Help
ZOO
SUMMER CAMP
AT YOUR ZOO
METRO WASHINGTON PARK ZOO • 1994

Another wonderful summer of fun and activity is fast approaching. For the 12th year, our professional camp staff will be leading children in exploring and discovering the wonders of the Zoo. We invite your child to join us.

New At Your Zoo

There are a lot of new things happening at the zoo this summer! The elephants will have an entirely new front yard with improved viewing areas. Naked mole rats and mole snakes will be added to the Africa exhibit. Ostriches will be joining the many Savannah animals. Golden lion tamarin monkeys will be free-ranging, a training program that will develop skills for their reintroduction into the wild. All of the Zoo Camp programs will incorporate the new zoo activities into their very busy schedules.

Penguin Campers

For 4 and 5 year olds entering preschool or kindergarten in the fall (no 3 year olds will be enrolled).

Penguin Campers explore the natural world using all their senses.

Colors, patterns, textures, shapes, sounds, smells, and tastes fill each day's exciting activities. Busy campers develop their appreciation for animals and build language and participation skills.

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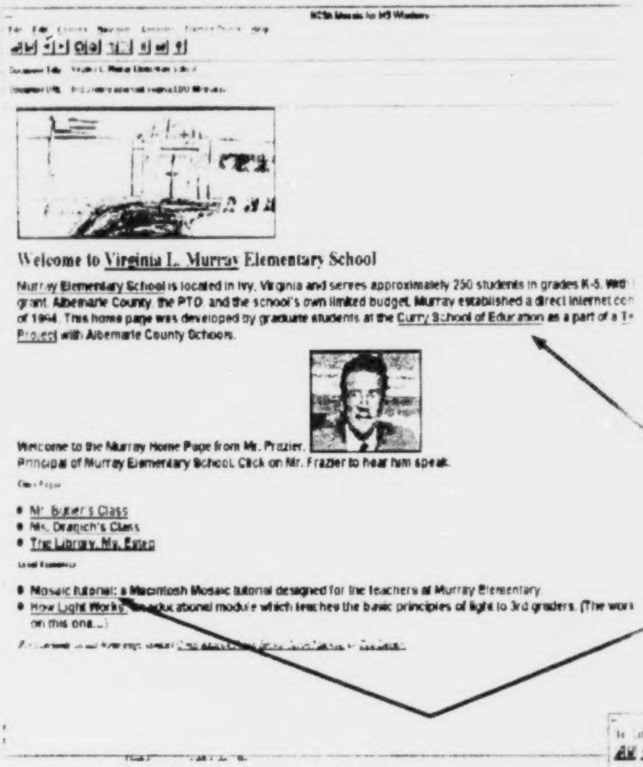
MOSAICS FOR K12


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Help
Document Title:
Document URL:

Welcome to Virginia L. Murray Elementary School

Murray Elementary School is located in Ivy, Virginia and serves approximately 250 students in grades K-5. Wi
grant, Albemarle County, the PTO, and the school's own limited budget, Murray established a direct Internet con
of 1994. This home page was developed by graduate students at the Curry School of Education as a part of a T
Project with Albemarle County Schools.

Welcome to the Murray Home Page from Mr. Frazier, Principal of Murray Elementary School. Click on Mr. Frazier to hear him speak.

Class Pages

- Mr. Butler's Class
- Ms. Dragich's Class
- The Library, Ms. Estep

Local Resources

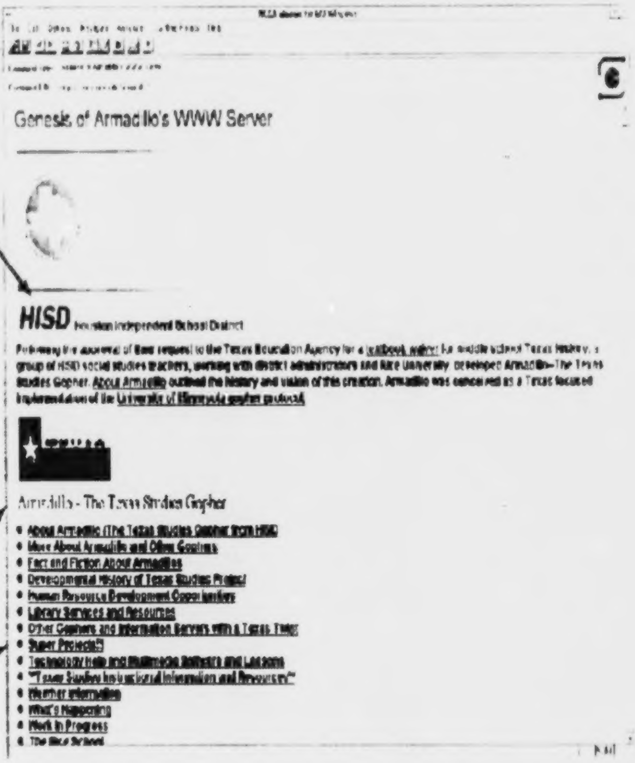
- Mosaic tutorial: a Macintosh Mosaic tutorial designed for the teachers at Murray Elementary
- How Light Works: an educational module which teaches the basic principles of light to 3rd graders. (The wor on this one...)

Murray Elementary School MOSAIC

URL: http://curry.edschool.virginia.edu/murray/

Curry School of Education (including the Teacher Education Internet Server

A SUPER Mosaic Tutorial ✓


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Help
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Document URL:

Genesis of Armadillo's WWW Server

HISD Houston Independent School District

Following the approval of their request to the Texas Education Agency for a textbook waiver for middle school Texas history, a group of HISD social studies teachers, working with district administrators and Rice University, developed Armadillo—The Texas Studies Gopher. About Armadillo outlines the history and vision of this creation. Armadillo was conceived as a Texas focused implementation of the University of Minnesota gopher protocol.

Armadillo - The Texas Studies Gopher

- About Armadillo (The Texas Studies Gopher from HISD)
- More About Armadillo and Other Gophers
- Fact and Fiction About Armadillos
- Developmental History of Texas Studies Project
- Human Resource Development Opportunities
- Library Services and Resources
- Other Gophers and Information Servers with a Texas Twist
- Super Projects!!
- Technology Help and Multimedia Software and Lessons
- "Texas Studies Instructional Information and Resources"
- Weather Information
- What's Happening
- Work in Progress
- The Rice School

Houston Independent School District About Armadillo and the Textbook Waiver

MOSAIC Armadillo

URL: http://chico.rice.edu/armadillo/

The Texas Study Gopher

Super Projects

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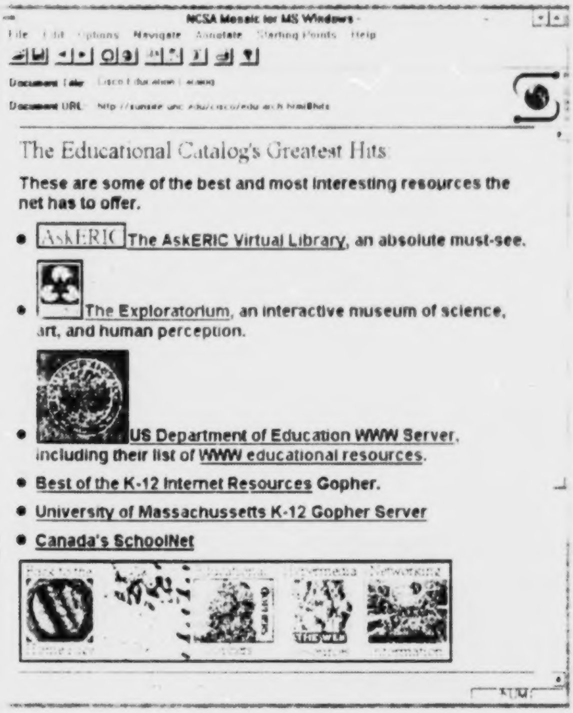
CISCO EDUPAGES


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Document Title: Cisco Education Catalog

Document URL: http://sunsite.unc.edu/cisco/edu-arch.html#hits

The Educational Catalog's Greatest Hits

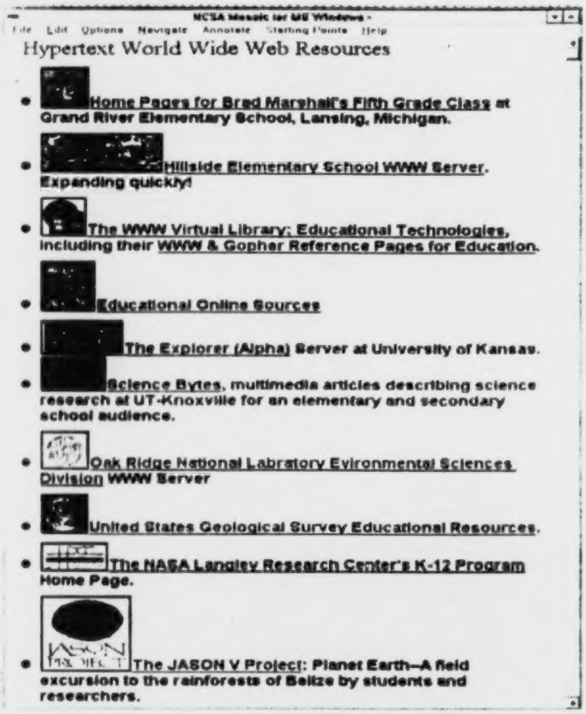
These are some of the best and most interesting resources the net has to offer.

- AskERIC **The AskERIC Virtual Library, an absolute must-see.**
- **The Exploratorium, an interactive museum of science, art, and human perception.**
- **US Department of Education WWW Server, including their list of WWW educational resources.**
- **Best of the K-12 Internet Resources Gopher.**
- **University of Massachussetts K-12 Gopher Server**
- **Canada's SchoolNet**

Back to the Homepage
Educational
Hypermedia
Networking
Information

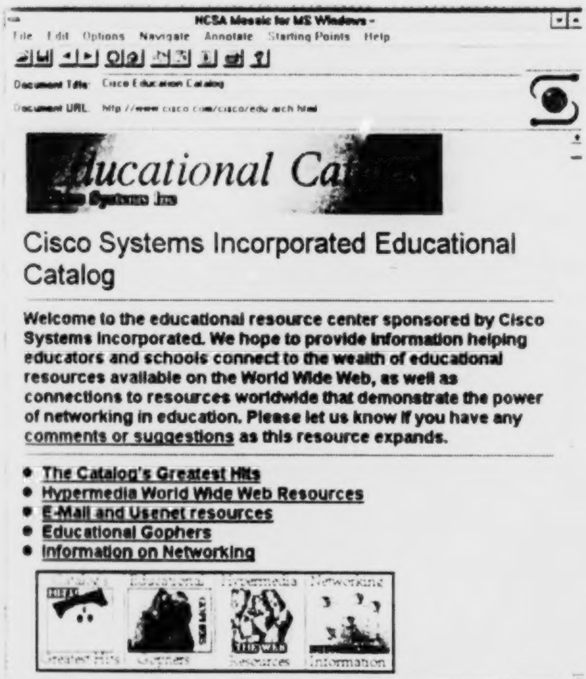
URL: http://www.cisco.com/cisco/edu-arch.html

Cisco , one of the foremost manufacturers of routing equipment, has put together a marvellous educational resource center. Their mosaics are first rate. If you want to know where to go on the Internet—wonder no more..


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Hypertext World Wide Web Resources

- **Home Pages for Brad Marshall's Fifth Grade Class at Grand River Elementary School, Lansing, Michigan.**
- **Hillside Elementary School WWW Server. Expanding quickly!**
- **The WWW Virtual Library: Educational Technologies, including their WWW & Gopher Reference Pages for Education.**
- **Educational Online Sources**
- **The Explorer (Alpha) Server at University of Kansas.**
- **Science Bytes, multimedia articles describing science research at UT-Knoxville for an elementary and secondary school audience.**
- **Oak Ridge National Labratory Evironmental Sciences Division WWW Server**
- **United States Geological Survey Educational Resources.**
- **The NASA Langley Research Center's K-12 Program Home Page.**
- **The JASON V Project: Planet Earth—A field excursion to the rainforests of Belize by students and researchers.**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Document Title: Cisco Education Catalog

Document URL: http://www.cisco.com/cisco/edu-arch.html

ducational Ca
Systems Inc

Cisco Systems Incorporated Educational Catalog

Welcome to the educational resource center sponsored by Cisco Systems Incorporated. We hope to provide information helping educators and schools connect to the wealth of educational resources available on the World Wide Web, as well as connections to resources worldwide that demonstrate the power of networking in education. Please let us know if you have any comments or suggestions as this resource expands.

- **The Catalog's Greatest Hits**
- **Hypermedia World Wide Web Resources**
- **E-Mail and Usenet resources**
- **Educational Gophers**
- **Information on Networking**

Greatest Hits
Educational Gophers
Hypermedia Resources
Networking Information
NUM

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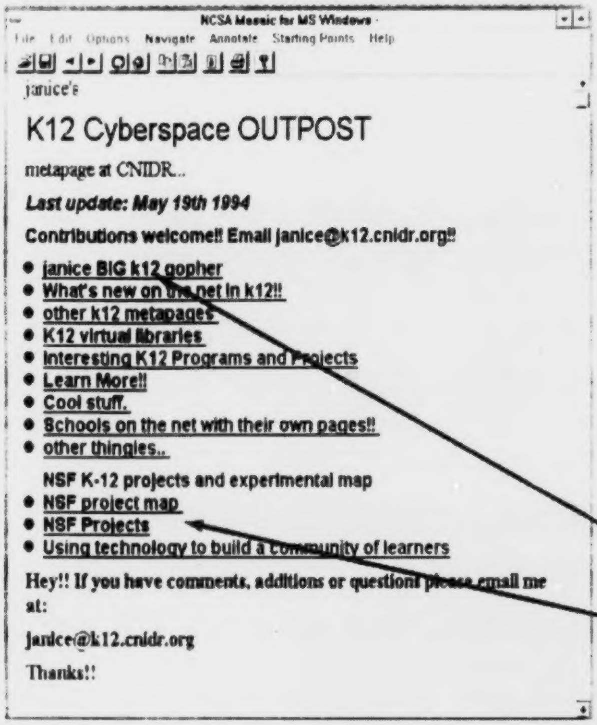
MOSAICS FOR K12


NCSA Mosaic for MS Windows
File Edit Options Navigate Annotate Starting Points Help

janice's

K12 Cyberspace OUTPOST

metapage at CNIDR...

Last update: May 19th 1994

Contributions welcome!! Email janice@k12.cnidr.org!!

- janice BIG k12 gopher
- What's new on the net in k12!!
- other k12 metapages
- K12 virtual libraries
- Interesting K12 Programs and Projects
- Learn More!!
- Cool stuff.
- Schools on the net with their own pages!!
- other thingies..

NSF K-12 projects and experimental map

- NSF project map
- NSF Projects
- Using technology to build a community of learners

Hey!! If you have comments, additions or questions please email me at:

janice@k12.cnidr.org

Thanks!!

JANICE'S K12 OUTPOST

Janice Abrahams, the creator of the Mother of all k12 Gophers, now brings you the K12 Cyperspace Outpost. This represents a tremendous amount of work from one of the leading pioneers in the field of k12 networking. THANK YOU, JANICE, FOR GIVING US THIS WONDERFUL OUTPOST.

URL: http://k12.cnidr.org/janice_k12/k12.menu.html

Janice's SUPER GOPHER

Check out this "hot" map of the NSF Testbed

NCSA EDUCATION AND RESEARCH PAGE

URL: http: www.einet.net/GJ/education.html

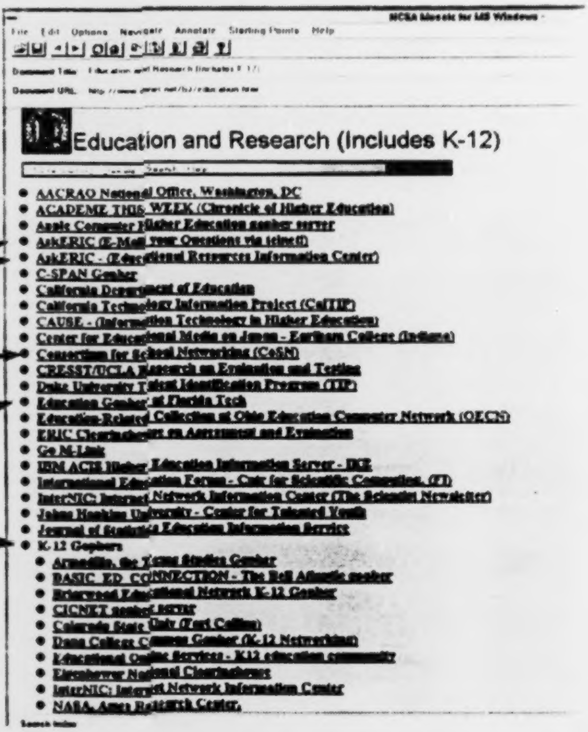
AskEric

CoSN Gopher

FIT Education Gopher

K12 Gophers

Armadillo
Basic Ed Connections
Briarwood
Cicnet Gopher
Colorado State University
Dana College Campus
Educational Online Services
Internic
NASA


NCSA Mosaic for MS Windows
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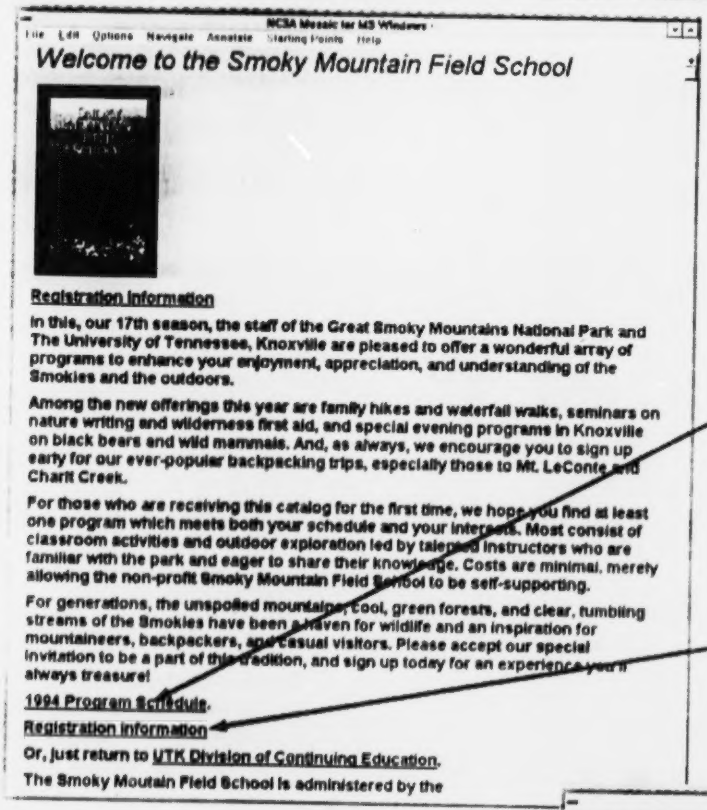
Document URL:

Education and Research (Includes K-12)

- AACRAO National Office, Washington, DC
- ACADEME THIS WEEK (Chronicle of Higher Education)
- Apple Computer Higher Education gopher server
- AskERIC (E-Mail your Questions via telnet)
- AskERIC - (Educational Resources Information Center)
- C-SPAN Gopher
- California Department of Education
- California Technology Information Project (CalTIP)
- CAUSE - (Information Technology in Higher Education)
- Center for Educational Media on Japan - Earlham College (Indiana)
- Consortium for School Networking (CoSN)
- CRESST/UCLA Research on Evaluation and Testing
- Duke University Talent Identification Program (TIP)
- Education Gopher at Florida Tech
- Education-Related Collection at Ohio Education Computer Network (OECN)
- ERIC Clearinghouse on Assessment and Evaluation
- Go M-Link
- IBM ACIS Higher Education Information Server - IKE
- International Education Forum - Ctr for Scientific Computing (FI)
- InterNIC: Internet Network Information Center (The Scientist Newsletter)
- Johns Hopkins University - Center for Talented Youth
- Journal of Statistics Education Information Service
- K-12 Gophers
  - Armadillo, the Texas Studies Gopher
  - BASIC_ED_CONNECTION - The Bell Atlantic gopher
  - Briarwood Educational Network K-12 Gopher
  - CICNET gopher server
  - Colorado State Univ (Fort Collins)
  - Dana College Campus Gopher (K-12 Networking)
  - Educational Online Services - K12 education community
  - Eisenhower National Clearinghouse
  - InterNIC: Internet Network Information Center
  - NASA, Ames Research Center.

Search Index


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Welcome to the Smoky Mountain Field School

Registration information

In this, our 17th season, the staff of the Great Smoky Mountains National Park and The University of Tennessee, Knoxville are pleased to offer a wonderful array of programs to enhance your enjoyment, appreciation, and understanding of the Smokies and the outdoors.

Among the new offerings this year are family hikes and waterfall walks, seminars on nature writing and wilderness first aid, and special evening programs in Knoxville on black bears and wild mammals. And, as always, we encourage you to sign up early for our ever-popular backpacking trips, especially those to Mt. LeConte and Charit Creek.

For those who are receiving this catalog for the first time, we hope you find at least one program which meets both your schedule and your interests. Most consist of classroom activities and outdoor exploration led by talented instructors who are familiar with the park and eager to share their knowledge. Costs are minimal, merely allowing the non-profit Smoky Mountain Field School to be self-supporting.

For generations, the unspoiled mountains, cool, green forests, and clear, tumbling streams of the Smokies have been a haven for wildlife and an inspiration for mountaineers, backpackers, and casual visitors. Please accept our special invitation to be a part of this tradition, and sign up today for an experience you'll always treasure!

1994 Program Schedule.

Registration information

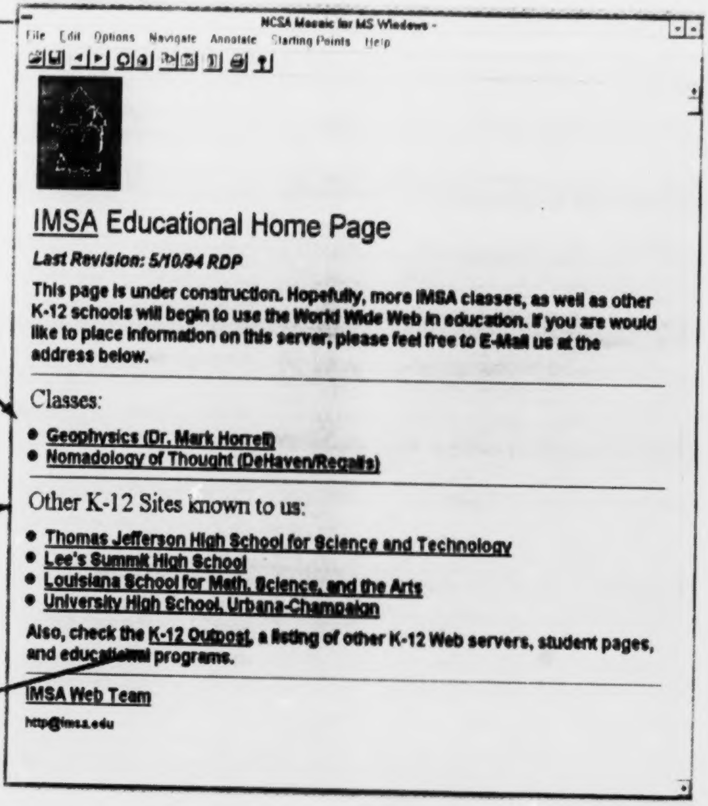
Or, just return to UTK Division of Continuing Education.

The Smoky Moutain Field School is administered by the

Smokey Mountain Field School

This marks the 17th season for the Smokey Mountain Field School. There are family hikes, waterfall walks, and backpacking trips into the Great Smokey Mountains. Program Schedule and Registration Information. The program is conducted by the Great Smokey Mt National Park and The University of Tennessee, Knoxville staffs.

The Illinois Mathematics and Science Academy Educational Home Page


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

IMSA Educational Home Page

Last Revision: 5/10/94 RDP

This page is under construction. Hopefully, more IMSA classes, as well as other K-12 schools will begin to use the World Wide Web in education. If you are would like to place information on this server, please feel free to E-Mail us at the address below.

Classes:

- Geophysics (Dr. Mark Horrell)
- Nomadology of Thought (DeHaven/Regalis)

Other K-12 Sites known to us:

- Thomas Jefferson High School for Science and Technology
- Lee's Summit High School
- Louisiana School for Math, Science, and the Arts
- University High School, Urbana-Champaign

Also, check the K-12 Outpost, a listing of other K-12 Web servers, student pages, and educational programs.

IMSA Web Team

http@imsa.edu

Geophysics Class

Other K-12 Sites

K-12 Outpost

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LUCAS, *Continued from p 4*

municating with others, and creating works of self-expression. The idea is not just to give students some experience with computers in order to prepare them to operate computers when they graduate– indeed, the technology they will encounter ten years from now will look very little like what they have right now. Rather, the idea is to give the students experience in adapting computer-based tools to meet their own needs and projects, which is exactly the skill they will need when they enter the word world. Technologies can also support the more traditional processes of education– gathering information, talking with experts, working in groups, etc.

The idea is to give the students experience in adapting computer-based tools to meet their own needs and projects

Many of the elements I've described currently exist around the country; they just don t come together all in one place. That is why I am helping to create the vision of Edutopia: an effective educational system in a world with ubiquitous technology. The Foundation is in the process of producing four half-hour videos that depict Edutopia. We plan to disseminate them widely to encourage discussion about new technologies and education. I would encourage members of this Committee to look at our videos and get involved in the discussions about the roles of technology in education.

The George Lucas Educational Foundation is particularly focused on the technology dimension of transforming the educational system. My expertise is in filmmaking and multi-media entertainment, and I believe that the tools we use in our commercial work have great potential to engage and challenge students in education, as well. The real power of these new technologies is three-fold:

- They have the ability to make more information available, and to help students sort through and interpret that information.
- They have the ability to support communication–among students, teachers, subject matter experts, parents, community members, etc.
- They have authoring potential: I don t want to make educational movies; I want kids to make their own movies, programs and presentations. I want them to have the experiences I have when I create; those are the experiences that help me continue to learn, and that feed my creative spirit.

The Foundation s mission, then, is to create a vision of how teaching and learning can be transformed through the innovative uses of multimedia technologies. There s a revolution going on in education, and I firmly believe that the vitality of this country depends on our ability to achieve the vision of Edutopia.

II. Achieving Edutopia

What does the transformation of education have to do with telecommunications policy? I think it is important to demonstrate the stakes involved in the decisions that the Congress is now making about the nation s telecommunications infrastructure, particularly about universal service. We need an infrastructure that supports communication among students, teachers, parents and experts, that facilitates learning in all kinds of environments, that gives students the opportunity to express themselves and their ideas in a variety of styles, and that knits communities together into systems that support all citizens learning.

A. How Far We Have Come

We have already made great strides. We have a high-quality public telephone network that reaches 94% of the homes and businesses in this country. Not only do these connections support personal and business communication; they currently serve as the on- and off-ramps to the information superhighway –high-speed data networks like the Internet. Teachers, students, and administrators use modems to dial into a plethora of information services, electronic mail systems, computer conferences, computing resources, etc. In addition, educational networks that link schools and universities have mushroomed, with every state having at least one such network.

With these facilities, students from around the world are cooperating to collect and analyze environmental data. Students are creating multi-media histories of their communities and using them to teach other students about their own heritage. They are participating in government forums, and learning how to be active citizens. They are learning each others languages, sharing each others experiences, and getting all the little life lessons that go along with working in teams to create a product.

The technologies are supporting teachers, as well, by breaking down the isolation that many teachers feel, and by bringing new resources to the classroom. The Internet supports several computer conferences devoted to aspects of school restructuring, where teachers and administrators can share their ideas, frustrations, and successes. Teachers also use electronic communication to coordinate curriculum planning and share classroom ideas. School districts are using electronic networks to facilitate communication among teachers, parents, community leaders and volunteers, so that all can become more effective facilitators of learning.

B. What Still Needs to be Done

To continue to take advantage of these new technologies and the educational innovations they make possible, there is still much to be done. Below is a list of several steps that I see as essential to our progress, the most basic of which concerns universal service. As the technologies and marketplace of telecommunications evolve, we will need new definitions of universal service and a renewed commitment to protecting universal service.

(See **EDUTOPIA** *p 17)*

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EDUTOPIA, *continued from p 16*

We should also look for ways to improve the processes through which universal service is defined and implemented, to assure that all the affected parties have an opportunity to voice their needs and concerns.

We must start with telephones, which are probably the most basic technology necessary to achieving our vision. Telephones are integral to enriching the educational experience by eliminating the isolation of classrooms and by providing access to information, experts and other resources as well as enabling joint projects with students and adults around the block, across the nation and around the world. While our national average of 94% penetration is certainly impressive, it downplays the fact that about 5 million households currently lack basic telephone service. Fifteen percent of black and Hispanic households, and twenty percent of Native American households, don t have telephone service. Without this most basic form of connection, these families cannot participate effectively in the education revolution we're talking about.

That's just the start, however. While we're bringing telephone service to those 5 million homes, we also need to work on our schools, where telephone service is woefully inadequate. A recent study funded by the National Education Association found that, in 1993, 52% of K-12 classrooms had at least one computer, 41% had a television, and only 12% had a telephone. Those without a classroom telephone usually relied on the phone in the school office to make calls, and almost half of those reported that the office phone did not allow for private communication with parents or fellow professionals.

Telephone service in every home and classroom is the first step to building the learning environments I have described. The second is to begin providing teachers and students with the hardware, software, and curriculum materials to take advantage of those links to the outside world. Some schools are way ahead on this, with computers and modems in every classroom, district- and state-wide networks that link them to other schools, and software and curricula that incorporate the principles of Edutopia. Other schools are behind; the NEA study mentioned above, for example, found that 43% of teachers have no access to modems at school. The challenge of equipping classrooms with the technology that's needed and providing teachers with the curricula and operating budgets to operate that technology successfully cannot be underestimated. Many of the schools at the forefront of these innovations have taken advantage of demonstration grants and seed money, but these technologies are no longer in the demonstrations stage: they are proven. We need to come up with funding mechanisms and a policy structure that assures that all schools, not just the leaders, will have access to this equipment.

At the same time that we are disseminating today's technologies to all schools, we also need to keep working on improving and expanding the multimedia technologies to be used in tomorrow's schools. For example, video cameras and editing facilities that cost hundreds of thousands of dollars just ten years ago are now available in hand-held and desktop systems for less than $10,000. As technologies like this come down in price, we need to be examining their potential uses in education, and working with teachers and students to develop appropriate supplementary materials. While I believe that it is up to the private sector to take the lead on this, policy-makers should also be looking for ways that they can facilitate such research and development, for example, by removing barriers that discourage R & D investment.

We also need to find ways to give teachers the training and the time to incorporate new technologies into their lesson plans and their own professional and administrative activities. This will involve familiarizing them with all kinds of new equipment and software and helping them work together to figure out good ways to use it. It will also require a rethinking of their relationships with their students and with each other. A recent dissertation by Scott Williams at Indiana University, for example, found that teacher isolation is a key stumbling block to school restructuring, and that teacher isolation is reinforced by all kinds of organizational and physical factors. While communication technologies could help break down teacher solation, we will have to help teachers address those other factors as well, if we want to achieve the Edutopia vision.

In addition to all of these suggestions, there are several aspects of the new information superhighway that will affect our ability to achieve Edutopia. Because the Internet now serves as the most important backbone network for teachers and students, it is essential that all schools get plugged in to this network as soon as possible. I urge the Congress to immediately adopt policies to assure that every school is provided with free long-distance calls to access on-line services and the Internet and to establish interactive learning and instructional opportunities with other schools. These connections will be stepping stones to more widespread communication and integration in the future.

Furthermore, as it becomes clearer how the nations information superhighway will be provided and administered, I hope that Congress will make sure that a portion of the information superhighway's capacity is set aside for educational uses. This capacity should be available free to students, parents, teachers and communities for education-related communication.

The information superhighway should also be provided according to open platform principles. Consumer groups such as the Alliance for Public Technology and the Electronic Frontier Foundation have offered various perspectives on these principles, but they share the basic concept that all content-providers should have access to the information superhighway. This means that technical standards should not be allowed to close the networks to certain types of equipment, services or content, and that network providers should treat all service providers according to the same rules. This will minimize entry barriers for service providers and maximize the innovative applications that will appear on the network.

(See **HR 3636** *p 22)*

Some K12 Gophers In Michigan

If you are looking for somewhere to go in the State of Michigan, let me suggest two excellent K-12 Gophers.

First, you might take a trip to the **Michigan Department of Education Gopher .**

To get there, from your main gopher menu, select Other Gophers/ then Michigan/ and then look for MDEnet-Michigan Department of Education Gopher. The main menu is the following:

```
        MDEnet - Michigan Department of Education Gopher

--> 1. Welcome to the MDEnet Gopher (Under Construction).
    2. Information About the Michigan Department of Education.
    3. What's New at the MDEnet Gopher.
    4. State Board of Education/
    5. State Superintendent/
    6. Legislation and State Aid/
    7. Department Personnel Directory/
    8. Grants/
    9. Technology for Education/
    10. Information Resources/
    11. Support Services/
    12. Curriculum and Instruction/
    13. Classroom Resources/
    14. Other Gopher and Information Servers/
```

In this search I chose #14 Other Gophers and Information Servers and the following menu appeared:

```
Other Gopher and Information Servers

    1. About this directory.
  -->2. Other K-12 Gophers/
    3. U.S. Deptartment of Education Gopher/
    4. United States Government Gophers/
    5. Other Gopher Servers/
    6. Other Gopher Servers In Michigan/
    7. Search Gopherspace with Veronica/
    8. New Internet Resources (via Washington & Lee Law Lib)/
    9. Clearinghouse for Subject-Oriented Internet Resource
Guides (UMich../
    10. Internet Resources by Type/
    11. Internet Resources by Subject/

 Internet Gopher Information Client v1.11
```

Then I chose #2 Other K-12 Gophers and the following menu appeared:

```
Other K-12 Gophers

--> 1. About the Other k-12 Gophers
Directory at MDEnet.
    2. MDEnet - Michigan Department
of Education Gopher/
    3. Armadillo--The Texas Studies
Gopher/
    4. Bloomfield Hills School District
Model School District/
    5. Briarwood Educational Network/
    6. Canada's SchoolNet Gopher/
    7. Education Gopher at Florida State/
    8. Empire Internet Schoolhouse (from NYSERNET)/
    9. K-12 on the Internet CICnet Select Education Resources/
    10. LaneNet (Lane County, Oregon)/
    11. NASA K-12 Information/
    12. NSF Testbed K12 Gopher (Bolt, Beranek, & Newman)/
    13. Ohio Education Computer Network K-12 Student Gopher
(OECN)/
    14. Poudre - R1 K12 (Ft. Collins, Colo.)/
    15. Princeton Regional School District/
    16. StarkNet (Stark County School District, Canton, Ohio,
USA)/
    17. The Ralph Bunche School Gopher/
    18. Umass K12/
```

I took another trip to Michigan to look at the **CICNET gopher server.** Their main menu appeared as follows:

```
Internet Gopher Information Client v1.11

              CICNET gopher server

--> 1. About CICNet and this Gopher/
    2. Electronic Serials/
    3. Other CICNet Projects and Gopher Servers/
    4. Resources at CIC Universities/
    5. Conferences and Events/
    6. The Internet Hunt/
    7. USENET News/
    8. Worldwide Directory Services/
    9. Weather Reports/Maps for the CICNet Region and the
U.S./
    10. Resource Discovery Tools/
    11. Other Gopher and Information Services including WAIS
(UMinn)/
```

I chose to looks at Other CicNet Projects and Gopher Servers and found the following menu:

Continued on next page

GOPHER

```
        Other CICNet Projects and
Gopher Servers

 -- 1. GLIN                     Great
Lakes Information Network/
    2. GreatLinks               Pioneering
Partners Gopher/
    3. Dial-MIDWEST
Support Gopher/
    4. dialILLINOIS             Support
Gopher/
 --> 5. K-12 on the Internet    Selec: Education Resources/
    6. NCREL                    North Central Regional
Educational Lab/
    7. Rural Datafication Project  Status, announcements, plans/
```

From there I selected K-12 on the Internet and the following menu appeared:

```
        K-12 on the Internet        Select Education Resources

 --  1. About This Gopher.
     2. Search This Gopher <?>
     3. Gopher Servers/
     4. FTP Sites/ ·
 --> 5. Telnet Sites/
     6. Library Catalogs (list maintained by Yale University)/
     7. Mailing Lists (listservs)/
     8. Education-related Publications/
     9. Using the Internet in the Classroom/
    10. FYI (K-12 networking Q&A and miscellaneous
information)/
    11. If You're Not Sure Where to Start.
 Internet Gopher Information Client v1.11
```

I decided then to look at #5 Telent Sites:

```
                Telnet Sites
--> 1. Academy One/
    2. Cleveland Free-Net/
    3. Dartmouth On-line Library System/
    4. E-MATH/
    5. ERIC/
    6. Food & Drug Administration Bulletin Board/
    7. Geographic Name Server/
    8. KQED Learning Link/
    9. Liberty High/
   10. Library of Congress/
   11. Martin Luther King, Jr., Bibliography/
   12. MicroMUSE/
   13. NASA SpaceLINK/
   14. Newton/
   15. OCEANIC (Oceanic Network Information Center)/
   16. Rutgers Campus-wide Information System/
   17. SpaceMet Internet/
   18. Virginia Grounds-wide Information System/
```

I went back up to the K-12 on the Internet Menu and selected #9 Using the Internet in the Classroom:

```
                     Using the Internet in the
Classroom

 --> 1. About Classroom Ideas.
     2. Academy One Project List
(September 1993).
     3. Aid to Foreign Language
Acquisition.
     4. Archaeology Units.
     5. Ask Dr. Science.
     6. Ask Prof. Maths.
     7. At-Risk Students.
     8. Beginning Examples.
     9. Building a Better Tomorrow.
    10. Chemistry Searches.
    11. Classroom Programming Projects.
    12. Cleveland FreeNet and Your School.
    13. Current Freeware and Shareware.
    14. Current Issues Project.
    15. Earth Day Treasure Hunt.
    16. First World Wide Web Server Designed By Kids.
    17. Glenview School District (K-8) World Wide Web Server.
    18. Hillside Elementary School WWW Internet Research
Project.
```

I decided to go back again to the K-12 on the Internet Menu and select #7 Mailing Lists:

```
 --> 1. A Note about These Lists.
     2. AACE-L (Association for Advancement of Computing in
Education).
     3. ABILITY (for study of academically, artistically, athletically abl...
     4. ALTLEARN (alternative learning strategies for physically
handicapp...
     5. APPLE2-L (exchange Apple II/IIGS software).
     6. BEHAVIOR (for children's behavior and emotional disorders).
     7. BGEDU-L (for quality of education issues).
     8. BIOPI-L (for high-school and college biology teachers).
     9. BR_Match (for matching students reading books).
    10. CHEMED-L (for high-school and college chemistry educators).
    11. CREWRT (for creative writing in education).
    12. CSAC-L (Computing Strategies Across the Curriculum).
    13. DEOSNEWS (distance education online symposium).
    14. DRUGABUS (for drug abuse education and research).
    15. Datagram (school computer networks).
    16. ECEOL-L (for early childhood education).
    17. EDAD-L (for educational administration).
    18. EDISTA (for distance education issues).
```

If you have any questions about the CICnet Gopher contact:
Rhana Jacot, Information Services Coordinator
rjacot@cic.net CICNet, Inc.
voice: (313) 998-6521 2901 Hubbard Drive, Upper Pod A
fax: (313) 998-6105 Ann Arbor, MI 48105-2467

The Digital Calendar

June 1994

13-15 June **NECC'94. Recreating the Revolution.** Hynes Convention Center, Boston, Massachusetts. For information, contact : NECC'94, Lesley College, 29 Everett Street, Cambridge., MAS. 02138 USA; tel: +1-617-349-8965; fax: +1-617-349-8968; E-mail: NECC94@BBN.COM

15-17 June. **INET'94/JENC5** Palace of Culture, Prague, Czech Republic. For further information contact: INET-JENC Secretariat, c/o RARE Secretariat; Singel 466-468; NL-1017 AW Amsterdam; tel: +31-20-639-1131; fax: +31-20-639-3289; e-mail: inet-jenc-sec@rare.nl

16- 18 June. **W.R.I.T.E. 94; "Writers' Retreat on Interactive Technology and Equipment"**Granville Island, Vancouver, British Columbia, Canada For information contact: IW.R.I.T.E.'94 Conference Chair Continuing Studies, The University of British Columbia, 5997 Iona Drive, Vancouver, B.C. Canada V6T 1Z1; tel: +1-604- 222-5251; fax: +1-604- 222-5249; E-mail: write@cce.ubc.ca

20-23June **8th Annual High Performance Computing and Communications Conference** at the Sheraton Imperial Hotel and Con-ference Center in Research Triangle Park, North Carolina. Sponsored by The Federation of Government Information Processing Councils (FGIPC); The theme of this year's conference is "Applications of High Performance Computing and Communications - the Future is Now." For registration and further information, contact Dr. John Miguel, FGIPC Conference Chair, P.O. Box 313, Tiverton, RI 02878-0313. Conference Hotline: Tel/Fax: +1-401 624-1723.

25-29 June New Streams: Distance Education & AI in Education **ED-MEDIA 94 WORLD CONFERENCE ON EDUCATIONAL MULTIMEDIA AND HYPERMEDIA** Vancouver, Canada. For information contact: ED-MEDIA 94; Association for the Advancement of Computing in Education (AACE), P.O. Box 2966, Charlottesville, VA 22902 USA; E-mail: AACE@Virginia.Edu; tel: +1-804- 973-3987; Fax: +1-804- 978-7449

25 June **SIG/TEL SUMMER MINI-CONFERENCE THE WORLD IN YOUR CLASSROOM.** The Virginia Society for Technology in Education's Special Interest Group for Telecomputing (SIG/TEL) will hold it's 2nd summer mini-conference on June 25th, 1994, at the Curry School of Education, University of Virginia, Charlottesville.(9:30am-4:30pm) Contact:Daniel Arkin, Virginia Society for Technology in Education 7337 Longview Drive, Richmond, VA 23225 (804)320-3424 or john@pen.k12.va.us

JULY

5-8 July **First International Conference on Distance Education** in Russia in Moscow, Russia. Conference Secretariat, ROSNIIIS (12-4), 22 Shepkina, 129090 Moscow, Russia; fax: +7-095-954-5127; e-mail: de_russia_1994@aie.msk.su

21-23 July **INTERNATIONAL SYMPOSIUM ON MATHEMATICS/SCIENCE EDUCATION AND TECHNOLOGY** ; San Diego, CA USA Sponsored by Journal of Computers in Mathematics and Science Teaching and Computers in Math and Science Teaching Div. | AACE | For information contact: 1994 Symposium/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA E-mail: AACE@Virginia.Edu; tel: +1-804-973-3987; Fax: +1-804- 978-7449

September

19-23 September. **EW-ED'94** in Crimea, Ukraine. The East-West Conference on Computer Technologies in Education (EW-ED'94) is the third in the series of conferences designed to report the best research in the field of Computer Technologies and Education and to provide opportunities for the exchange of information and ideas between Eastern and Western scientists. For further information, contact: Simferopol:Dr Svetlana Dikareva, Computer Center, Simferopol State University, Yaltinskaya, 4, Simferopol, Crimea, Ukraine 333036; E-mail: cted94%ccssu.crimea.ua@ussr.eu.net; tel: 0652 23-23-82; fax: 0652 23-23-10

October

14-16 October
MATHEMATICS,SCIENCE & TECHNOLOGY: PARTNERS FOR THE FUTURE, California State University, Fresno, CA. Sponsored by The California Mathe-matics Council Central Section and The School Science and Mathematics Association.
PROGRAM CHAIR
Elizabeth Sullivan
FCOE, 1111 Van Ness
Fresno, CA 93721
209-265-3071
Internet: esulliv@eis.calstate.org

25-26 October **Multimedia Schools '94** The Practical, How-to Conference & Expo for School Professionals Working with Multimedia, CD-ROMS, Online & The Internet. Hyatt Regency, San Francisco, CA. For an Advance Program tel: +1 203-761-1466 or 800-248-8466; fax: +1 203-761-1444, or mail coupon to: MA'94, 462 Danbury Road, Wilton, CT 06897-2126

November

10-13 November **TEL Ed'94**
in Albuquerque, NM; Contact: Lori Novak, ISTE, Tel Ed'94, 1787 Agate Street, Eugene, OR 97403-1923; tel: +1 503-346-2411; fax: +1 503-346-5890; e-mail: ISTE@oregon.uoregon.edu

March 1995

22-25 March 1995 **SITE'95** 6th International Conferene in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: AACE@virginia.edu

New Partnerships, New Foundations

The Morino Institute

In April, The Morino Institute was formely established. The Institute was the brainchild of Mario Morino, the former CEO of Legend Corporation. Mr. Morino—a dynamic leader and concerned citizen, established the Institute to help individuals and communities work together toward social change through the power of information and the potential of electronic communucations. The Institute's work is ti educate local communities in ways they can use information and electronic communications as a force for positive social change—so that they can more readily address community needs like economic growth, advancing education and improving access to healthcare information.

The Institute emphasizes local communities as the most effective level at which to address these needs. It will initiate community-based programs to enhance theawareness of the positive and negative impact of electronic communications, sponsor studies to understand the information and electronic communications needs of communities, create effective training programs that can be used by communities, educate people in collaboration techniques, and develop models for community-based programs.

The Institute will work in partnerships with community members and other groups in four key program areas:

Education and Communications Programs
Collaborative Pilot and Research program
Community Service Fellowship Program
CommunityWorks Program

For further information concerning the The Morino Institute contact:
The Morino Institute
768 Walker Road, Suite 289
Great Falls, Virginia 22066 USA
Tel: +1-703-759-0477
Fax: +1=703-759-9584
E-Mail: info@morino.org

ACCESS EXCELLENCE:

Last October, Genetech Inc. unveiled a ten million dollar program for high school biology teachers called Access Excellence. Access Excellence offers biology/life sciences teachers a nationwide interactive computer network (America Online) to not only communicate with other teachers, but to gain access to what previously were seemingly remote resources at unviersities amd educational organizations throughout the country. An informaiton clearinghouse and support center was located at Genetech's South San Francisco headquarters to serve as the communications hub for the programs.

Each year, 100 biology teachers are to be selected by the National Science Teachers Associaiton (NSTA) to become the core participants in the computer network. These teachers are to be selected on their demonstrated capabilities and interest level in advancing the state-of-the-art of secondary school biology education. Recently, the first group of 100 educators was selected by the NSTA. In July, these teachers will particpate in the first annual Access Excellence Biology Education Summit in San Francisco. At the summit, the teachers will become acquainted with one another as well as with scientists and science education experts to foster collaboration. Each teacher will be provided with a laptop computer and training on how the computer can be used to access an on-line network for continued interaction.

For more information about Access Excellence write to Access Excellence, 460 Point San Bruno Blvd, South San Francisco, CA 94080 USA ; or call: +1 415-225-1000

Twenty-four Teams of Pioneering Educators Selected

Twenty-four teams of educators who have pio-neered the use of technology in the classroom in eight Great Lake states, have been selected for a grant and scholarship profram which has awarded more than US $1.2 million since its inception in 1991.

Pioneering Partners for Education Technology was created by the Council of Great Lakes Governors as a way of spurring the use of technology in K-12 classrooms in the region. Three teams from each state are recognized for their successful uses of technology, and then asked to help disseminate the news to other classes and schools, of what works best with students.

Winning teams receive a base grant of US $3,000 plus up to an additional US $2000 in matching funds They're also awarded a scholarship valued at over US $8300 for special training at a week long, "Partnership and Educational Summit" held in Norwalk, Connecticut at the GTE Management Development Center.

For more information write to: Pioneering Partners, Mail Code INAAAJZ, 19845 US 31 North, P.O. Box 407,

HR 3626 *continued from p 17*

III. How H.R. 3626 and H.R. 3636 Will Contribute to Edutopia

In the preceding section, I have outlined several steps that must be taken if our vision of Edutopia is to be achieved. Some of these steps will be taken by individual school districts, and others are the province of private industry and state education agencies. However, it is clear that there is an important role to be played by federal telecommunications policy-makers, as I have described. By taking a lead in planning the information superhighway, and removing barriers to private industry's investment in that infrastructure and its attendant equipment and software, Congress can help us achieve our vision of Edutopia. H.R. 3626 and H.R. 3636 are clear steps in that direction.

The bills are essential because they address the challenges raised by technological change and increasing competition in telecommunications markets. One of the most pressing challenges involves universal service. Marketplace competition is undercutting the cross-subsidies that have allowed us to keep basic rates low. In addition, market and technological changes are limiting policymakers leverage over rates and service offerings. In this environment, how can we upgrade our definitions of basic service, and guarantee that level of service to all residences and schools? We need a new regulatory model to meet this challenge.

H.R. 3626 and H.R. 3636 articulate such a model. They rely on competition and consumer demand to drive the development of infrastructure and services, while instituting appropriate consumer safeguards. The bills will enhance competition in the telecommunications industry, especially in local and long-distance telephone service, giving consumers and school districts more choices for equipment and services and greater access to the information superhighway. Because the bills remove most of the barriers separating sectors of the telecommunications industry, it will be easier for school districts to find packages of services tailored to their needs and to develop the multi-media applications that I have described above.

In addition to enhancing competition in local and long-distance telephone service, the bills will introduce more competition in telecommunications equipment manufacturing. This will bring us more innovative tools, and it will make them available more quickly. The regional Bell companies are already active in many education- oriented projects, and their experience will allow them to build network equipment and customer premises equipment that meets the needs of educators, students, and communities. H.R. 3626 contains language requiring the regional Bell companies to invest resources in education-oriented research and applications projects.

Other manufacturers and software developers will also be able to partner with the Bells at all stages of the development process. By removing barriers to these strategic partnerships, the bills not only encourage innovation; they also help provide the financial incentives needed to encourage investment in the telecommunications infrastructure. When the nations largest telecommunications companies are working together to develop telecommunications products, services, and infrastructure, other firms can jump on the bandwagon, knowing that there will be demand for their products and services. This will speed development of the infrastructure, and the sooner that we can bring digital, interactive, broadband connections to every home and school, the sooner our vision of lifelong, student-driven learning will be realized.

The same logic stands with regard to competition in long-distance service and video programming and transmission. If more companies are allowed into these industries, their entry will help jump-start the infrastructure-building process. While the Foundation, and most educators, don t personally care which providers bring those interactive, broadband connections to homes and schools, we do want to make sure that someone does it. I believe that allowing the largest telecommunications companies into those sectors is essential to creating the momentum and markets that will build the infrastructure we need. We look forward to working with a variety of providers, and I firmly believe that we cannot continue to lock out any companies that possess the experience, the R & D capacity, and the capital to help make the information superhighway a reality.

IV. Conclusion

As an expert in filmmaking and multimedia technologies, I long ago became convinced of the power of new technologies to excite peoples imagination. In recent years, I have devoted some of my energies to bringing the power of these technologies to education. The George Lucas Educational Foundation is committed to the belief that, with the innovative use of new technologies, we can infuse education with the energy and spirit that children naturally bring to learning. With the help of hundreds of education professionals, parents, students and others, we are developing a vision of education that is focused on the learner and is technology-rich. I have sketched that vision here in hopes of demonstrating the high stakes involved in this Committee s decisions about our telecommunications infrastructure.

At the same time that we are witnessing this revolution in telecommunications and multimedia technologies, there is a revolution going on in the telecommunications marketplace, as well. To expand and protect universal service, we need new a new model of telecommunications regulation, one that relies on competition while safeguarding consumers interests.

Throughout my testimony I have made many specific suggestions for how our vision of Edutopia could be achieved in this environment. They can be summarized in one, over-arching recommendation: that the Congress formulate policies to encourage the development of a telecommunications infrastructure that is based on building an interactive, broad

(See **EDUTOPIA** on page 24)

The NetTeach Bookstore: Special Reports

🗀🗀🗀🗀**Building Consensus/Building Models: A Networking Strategy for Change.** March 1994.

This is the final report of the CoSN/FARNET Project. The Report reveals a consensus view of educational reform, the role of networking in systemic reform, and recommends a strategy for supporting and promoting networking in schools. This project was conducted jointly by the Federation of American Research Networks (FARNET) and the Consortium for Schol Networking (CoSN). The project was supported by the National Science Foundation under Grant No. RED-9254947. (The paper will soon be put onto the CoSN Gopher) For information about the hardcopy version contact: Laura McKelvy, FARNET, +1-617-860-9445; e-mail: mckelvy@farnet.org or Kathy Rutkowski, COSN, tel: +1 703-471-0593; e-mail: kmr@chaos.com

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🗀🗀🗀🗀**Stages of Internet Connectivity for School Networking** by Robert Carlitz and Eugene Hastings, January 1994.

This is an excellent resource for schools seeking access to the Internet. It describes the costs and benefits associated with various possible stages of connectivity. The paper can be found in the Common Knowledge:Mosaic Home Page. For further information, contact Bob Carlitz at <bob@hamlet.phyast.pitt.edu>

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🗀🗀🗀🗀**K-12 Internetworking Guidelines (An Internet Draft, December 1993)** by Joan Gargano and David Wasley.

An excellent paper that discusses the benefits of the TCP/IP protocols and states general principals that should be followed when designing school network implementations.

The paper can be obtained by gophering to /Other Gophers—> /International Organizations—>/Internet Society and IETF—->/IETF—>/ftp archives of internet drafts —> **draft ietf-isn-k12-guide-00.txt**

◆ ◆ ◆

🗀🗀🗀🗀**The Internet in K-12 Education** by the Internet in K-12 Education Project Team—Department of Engineering and Public Policy, Department of Social and Decision Science, Heinz School of Public Policy and Management of the Carnegie Mellon University, December 1993.

This is an excellent study of the Common Knowledge: Pittsburgh (CK:P) Project—one of the NSF-sponsored National Testbed Networking Projects. The study considers the educational uses of the Internet, common characteristics in K-12 Internet activities; the effects of successful Internet activities on teaching styles; the effects of the Internet in schools, professional development of educators using the Internet, and policy considerations for the use of the Internet in the K-12 environment. It also includes a listing of k-12 activities, projects; information on restructured education theories; and examples of acceptable usage policies. To receive a copy of thew report (at cost) send a check for $12.40 payable to CMU/EPP to:ATTN: Internet in the Schools Project Report, Department of EPP, 129 Baker Hall
Carnegie Mellon University, Pittsburgh, PA 15213-3890
For further information contact: William Yurcik;
e-mail: yurcik@dftnic.gsfc.nasa.gov

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🗀🗀🗀🗀*The Internet: Its Impact and Possibilities—A Special Edition* **Information Searcher,** Vol.6, no.2. 1994

The most recent issue of Information Search was a special edition devoted to the Internet. The Information Searcher is a quarterly newsletter for CD-ROM and online searching in schools edited by Pam Berger and published by Datasearch Group, Inc. 14 Hadden Rd, Scarsdale, NY 10583; tel: +1 914-723-1995.

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🗀🗀🗀 **20/20 Vision: The Development of a National Information Infrastructure** (U.S. Department of Commerce, March 1994)

20/20 Vision includes the reflections of such telecommunications thinkers as: Lewis Branscomb, Brian Kahin, Henry Geller, Heather Hudson, Mitch Kapor, and Eli Noam. These experts were asked to broaden the policy discussion concerning the NII and to development benchmarks to measure success, and suggest ways to extend the concept of universal service and ensure information access for all Americans.

For Sale by the National Technical Information Service, Springfield, VA. USA Tel: +1 703-487-4650

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EDUTOPIA, *continued from p 18*

band public network that connects every home and school in this country and allows for free long-distance phone calls for educational purposes.

The two bills currently before the Committee, H.R. 3626 and H.R. 3636, are blueprints for creating the marketplace in which our vision of Edutopia can be achieved. They free the regional Bell companies to participate in the manufacture of needed equipment and software, and they remove barriers that keep the Bells from investing in infrastructure improvements. They open up local telephone service to new competition from cable operators, long-distance providers and others. They also assure that the nation s largest telecommunications companies will be active in the long-distance and cable television businesses, giving educators more choices of providers and more outlets for their educational programming and communication.

H.R. 3626 and H.R. 3636 set the stage for modernizing telecommunications policy by allowing it to keep pace with the whirlwind of marketplace and technology developments that leading to the convergence of heretofore distinct sectors of the telecommunications industry. The old ball park refrain, "you can't tell the players without a program," is increasingly applicable to the industry. Hardly a week goes by that we do not read of a new merger, acquisition or partnership aimed at developing the infrastructure for of the applications of the information superhighway. AT&T-McCaw, US West-Time Warner, MCI-Jones Intercable; old competitors are becoming new allies. H.R. 3626 and H.R. 3636 modernize telecommunications law and promote the public interest by lifting antiquated barriers to competition and defining the universal service obligations of all industry players.

I strongly encourage the Committee to support these bills and incorporate our recommendations for free and open access for education to ensure that the information superhighway is the road to educational excellence in America.

A Selection of Articles From NetTeach News
Volume One, Numbers 1-10 (March 1993-March 1994)
is now available.
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NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages*.

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NetTEACH NEWS

Volume 2 , No. 2 The Newsletter for K-12 Networking Educators June/July 1994

The Learning Revolution

by Kathy Rutkowski
<kmr@chaos.com>

The technology is seductive. Global networks transparently transmitting megabytes of information in fractions of a second. Client/Server software supporting fabulous real-time multimedia presentations on pc and mac workstations. Effortless visits to virtual reality worlds.

There is no denying that the Internet and all the technologies associated with internetworking and multimedia are remarkable and revolutionary but the ultimate revolution is not technological but rather socio-economic. We can only begin to conjecture what the new social landscapes will look like in the Information Society but we must understand that how we NOW use the technology will impact on the evolution of society.

Each and everyone of us who uses and promotes the use of this technology is in fact an architect of some aspect of that future world. Our challenge is to maintain control over the technology and not have it control us. To do so, we must constantly ask ourselves the fundamental reason for its use.

The focus up to now has been on the technology. The time has arrived when we must ask the more difficult and controversial question: how will these technologies CHANGE the way people live, work, and interact. In education, our fundamental focus must be on learning.

For over two decades, economies around the world have undergone restructuring and transformation. The advanced world economies have witnessed the emergence of the knowledge sector as predominate and the shift of laborers from manufacturing into service/knowledge industries.

Two decades ago the term "positive economic adjustment" was in vogue to describe the process whereby new more efficient industries replaced older declining industries. Currently the term corporate "down-sizing" is understood to be a corporate response to global economic realities. I suggest that our educational systems are not immune and must respond to the broader political economic contextual changes.

Educators have talked about the need for "Educational Reform." More recently, the terms "restructuring" and "systemic change" have come into vogue. Mostly, some pedagogic changes have been implemented and schools and school systems have tried to stay afloat in the general flood waters of societal change that deluge the nation and the global society.

Technology offers education an opportunity to engage in the broader political economic discussion, and also the means to positively respond to those broader contextual changes.

(*See* **A New Kind of Learning** *p. 2*)

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A NEW KIND OF LEARNING, continued from p. 1

This is a unique opportunity for educators but one that few are comfortable with. Educators must be actively drawn into this dialogue because in fact the societal dialogue is one that concerns how to use knowledge constructively.

Since the dawn of civilization knowledge has played an instrumental but indirect role in political economics but now information is emerging as a dominant property and as such it will play a more direct role in the determination of power and wealth.

It is true that in the Agrarian Revolution most landowners never tilled the land, and in the Industrial Revolution, most factory owners never worked in the factories. One might assume therefore that in the Information Revolution, the Information czars will not be themselves knowledge builders. However, this technological revolution has been the most democratic of all, and potentially can change the playing field significantly.

Educators become pivotal players in that the business of education is learning. If educators can promote creativity and nurture lifelong learning in a majority of the global citizens, then it is possible to realize a more equitable and efficient reallocations of power and wealth in the emerging society.

The allegory of the cave is perhaps instructive here. It is simply not enough to tell a man who is chained in a deep and dark cave about the sun's brilliant light. Enlightenment can only come from the man freeing himself from his chains and climbing out of the tunnel to the light of day, and then returning back in to help others free themselves.

We understand that learning must be Constructionist, hands-on, and knowledge building in approach but to embrace that type of learning requires a redefinition of teacher, learner, school and indeed educational system.

If we actively promote this kind of learning then major systemic change will ensue in education. Teachers will become mentors, learners will be lifelong learners, and schools will not be isolated places of learning but will be interconnected and viable global learning villages.

If we simply introduce new technologies to promote old learning paradigms there will be no effective systemic change in education, and more importantly the potential of the information technology to support a truly democratic societal revolution will be lost. New information czars will appear and the vast majority of information workers will be nothing more than knowledge serfs. We will all soon believe that the shadows dancing on the walls of our universe are the only reality and have no notion of the universe beyond and of the ultimate freedom of human creativity.

Those of us who are now promoting the use of technology in education must fully understand and accept the genuine challenge we face. We must abandon the notion that the deployment of the technology is somehow more important that its effective use to promote a new learning paradigm.

The educators among us must understand that their challenge is the most difficult and noble of all. They are being asked to seek the unfamiliar and to lead other less enlightened educators and elements of society to this new understanding of learning and education. Those of us outside the system can support them up to a point but they —you the NetTeachers—will surely carry the most onerous weight of this revolution on your backs.

This is your time, your place, and your destiny. The creativity of man has provided you with the technological means to nurture creativity in a democratic and equitable manner, and by so doing to free future generations to soar to new heights in information seeking and knowledge building.

Socrates talked about the Guardian Class and dismissed the creative potential of the masses. For centuries, the intelligentsia has been held as somehow different than the rest of society. Today, the intelligentsia can become mainstream society, and one can only wonder what remarkable things a truly enlightened global citizenry can achieve.

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Gravity Piece and NECC Reflections
by Ferdi Serim

To reach the stars, aim at the sun

Take the knowledge from any age - in Africa, your hue may come from the sun or from the earth, but the beat comes up through your feet towards the sky. The Greeks' lever of Archimedes, moving worlds, required only a place to stand. Force magnified by fulcrum, whether orbit or point of view: NASA uses the same tool today, and will tomorrow.

Newton points the way, and our gravity slingshot amplifies the most powerful forces we can muster (which are in fact puny on nature's scale), whipping us round the heaviest point we can find, on our way out from Sol's grasp, towards we know not what, but certainly beyond the stretches of our own mortality, where thought and possibly spirit alone can travel.

Same with music. Get next to the heaviest cats you can understand, pay the dues to deal with the masters (the giants upon whose shoulders "they" have stood), whip around their profundity and go off to discover your own. The trails shine out like a burst of fireworks, triumphant before they extinguish, lighting, inspiring, prelude to the next. Sun Ra's angels in space.

A lifetime's liberation is only a mind away. A way of life, time to liberate by linking your mind with others, in reflection, action, reaction and collaboration. Now we read, see,... soon we hear, feel, beginning to know enough to guide new actions that fill the moments we "do" have while we're here with a richness no one could have forseen, who was not a sage or poet. Art is brought to living, within reach of anyone willing to learn every day, too high a price for many still, but each new person causing the darkness to recede just a little, perhaps just enough to enable yet another to say "Yes" to the challenge.

(those of you prefer more grounded expression may now delete everything above this point, the poetically inclined may delete that below, the curious are on their own! ;>)

What's This Got to do With Anything? –I thought you'd ask!

At NECC it became poignantly clear to me that we are the stars in each others galaxies. Yes, it is too big. Yes, there are too many workshops, too much to see. And yet our 5,000 peers represent a whopping .25% of teachers. Those not there (3,999 out of 4,000) are not a vacuum, those who resist computers or even learning are not black holes. It is, however, our responsibility to reach out to everyone who life brings into our contact range and connect with them, first as human beings, and secondly to welcome them as potential members of our growing community.

Participate! Online, offline, in the checkout line...take every opportunity to promote lifelong learning.

You never know for whom you may serve as an influence. I saw it countless times each hour, and saw how this incredibly talented, curious and energetic collection of individuals grouped, regrouped and got set to make things happen when they get home. The heaviest talents you see on the net are (usually) approachable, and as people get to know one another, by their thoughts and works, evermore "stars" come into view. I mean this in the celestial, navigational (as opposed to People magazine) sense; guideposts and pivot points, we can learn from one another as never before in history.

One major insight that arose during a CoSN birds of a feather session came from a "newbie" who'd lurked on lists for a while and decided that we're "too far along", that the distance required to "catch up" was impossible, and increasing daily as more and more "high end" uses of the internet take up more and more of our consciousness (as measured by lines of discussion). We didn't seem to be a "friendly" space. We need to think long and hard on this one.

Another insight was the incredible power of the KidLink session, where 9 individuals described the wonderful evolving resource for students and their teachers, tackling real problems in a real way. When the question "how are you funded" was answered by "not at all", a silent wave of shock rolled through the huge room as the implications of volunteer dedication, sharing and love, as a slide show of graphics created by kids the world over splashed across a large screen. Their committment to "low end"solutions, to ensure that the maximum number of kids could participate the world over is instructive to those of us who rely on new machines with good connectivity. Some of the stars we need to reach for may be behind us.

In conclusion, it's about people. Participate! Online, offline, in the checkout line...take every opportunity to promote lifelong learning. Model it yourself by your use of technology, to share what you know, and approach others who know what you need to know. The results will move us to a new world.

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Richard W. Riley, U.S. Secretary of Education Speaks on the Age of Technology

Speech at Technology Conference, Washington, D.C., May 9, 1994

As you know, historians usually divide history into different periods, identifying each by something that was essential to those living during that time – the Stone Age, the Bronze Age, the Copper Age, the Age of Agriculture, the Industrial Revolution and, of course for some of us, the Elvis Years.

But without a doubt, the time in which we are now living will be known as the Age of Technology. During the past decade, we have seen a wondrous explosion of technological innovation that has begun to change the way that we live and work. But these developments will no doubt pale in comparison with the changes that are likely to occur within our society in the next five to ten years. In particular, technology will change the ways in which we educate our students ... how teaching and learning will take place.

As you know, with these technologies, by connecting classrooms in different cities and states, we can depart from the traditional confines of a single classroom. Anything confining is a deterrent to learning. And students can use these technologies to explore the greatest libraries in the Nation without ever stepping away from their desks. Teachers can share ideas with other teachers ... and schools can learn from other schools by sharing ideas that work.

We have forever destroyed the limitations of two-dimensional learning and teaching. Like Alice in Wonderland, we have walked through the mirror – or in our case, the chalkboard – changing forever the ways in which we can communicate, teach, and learn.

During the last year, I have had the opportunity to travel across our great Nation visiting schools and meeting with teachers, school administrators and staff, parents and students. I have seen, firsthand, advanced computer and telecommunications technologies being put to work by students.

In Kansas, I saw students work almost half the day, individually and in teams, using technology to learn exciting core academics. It brought history and science and art to life ... and it captivated the students and encouraged their interest in learning.

And in Iowa, I visited the I.C.A.N. Center (the Iowa Communication Network) at Drake University, a two-way interactive fiber optic network that links high schools, colleges, universities and community colleges throughout the State. It provides the best resources to communities that might otherwise not be able to afford or access this material. In Rhode Island, I saw impressive use of technology in an exciting Tech Prep program – preparing high school seniors for meaningful careers.

What I saw with these projects reaffirmed my belief that technology has enormous potential for improving teaching and learning. The students in these programs – average – were able to do amazing things. They were learning much more than they could have learned in the average classroom ... they were applying their knowledge to real problems ... and perhaps most important, they were enjoying learning.

Having seen this glimpse of the future and how this model of learning can energize young minds ... I am all the more committed to linking education and technology ... to meeting Vice President Gore's challenge to connect all of our classrooms and libraries the Information Superhighway.

But if we are to be great as a Nation, all classrooms need to be connected – no one should be left behind – and I need your help to make this happen.

Happily, we have a vehicle for our efforts. The Goals 2000 Act, which President Clinton signed into law just one month ago, can play an important role in this regard. The Law establishes, for the first time in America's history, voluntary high academic and occupational skill standards that will provide a lighthouse of world-class performance toward which we can aim, and to which we can gear our new technology. And it will help us to make the essential determination as to how to link education technology with high standards.

We know that when students are challenged in school, and when they enjoy what they are learning ... they simply learn more. Coupling the world-class education envisioned by Goals 2000 with the potential of technology will provide our Nation with a jump start to reach the high standards that this new and important Act calls for.

But what is most exciting about Goals 2000 is the partnerships it creates – within and between local communities, state governments and the federal government, and between parents, educators, and business, civic and community leaders. Local communities and states will be asked to analyze how technology can be used to upgrade their schools and learning. This Department will supplement States in developing their technology plans. And the private sector – our telephone, cable, telecommunications providers – can be essential partners in developing these technologies and strategies..

The Christopher Columbus Middle School in Union City, New Jersey offers a prime example of partnership in action – successfully bringing both education reform and technological innovation to our communities and schools. With the help of the telephone company, the students at this school are provided with a rich source of interactive learning materials at school and at home.

(*SEE* **Richard Riley**, *p 16*).

NEWS FROM THE STATES: ACCESS INDIANA—INDIANA'S INITIATIVE TO CONNECT SCHOOLS TO THE INTERNET

ACCESS INDIANA PARTNERS

Governor Evan Bayh

Lieutenant Governor Frank O'Bannon

Superintendent of Public Instruction Suellen Reed

Indiana Chamber of Commerce

Indiana Manufacturers Association

National Federation of Independent Business/Indiana

Indiana Telephone Association

Indiana State Library

Indiana Cooperative Library Services Authority
Indiana Public Broadcasting Stations, Inc.

Indiana Association of cities and Towns

Association of Indiana Counties

Hoosier State Press Association

Indiana State School Boards Association

Indiana Association of Public School Superintendents

Indiana State Teachers Association

Indiana Federation of Teachers

Indiana Association of Education Service Centers
Indiana Association of School Business Officials

Indiana Higher Education Telecommunication System representing Purdue University, Indiana University, Ball State University, Indiana State University, University of Southern Indiana, Vincennes University and Ivy Tech

Indiana State Government-Departments of commerce, Education, Workforce Development, Heath, Administration, Transportation, Family and Social Services Administration, Intelenet, Data Processing Oversight Commission and Public Records

Indiana Business Modernization and Technology

Indiana Small Business Development Corporation Network

Statement by Dr. Suellen Reed
Superintendent of Public Instruction
Indiana Department of Education
July 11, 1994

The Department of Education is proud to be a part of today's announcement of ACCESS INDIANA.

This partnership is a recognition of the importance of all of us working together--and by all of us I mean state government, education, business, local government, public television, libraries and communities in the broadest sense--so that we can provide more and better opportunities and service to children and adults of all ages.

There are a lot of good things about today's announcement one can talk about, but let me just say a few words about these:

First, though this is a small step toward making information available to all residents, it is an important step that sets the direction for broad access to government, community and other services. Many of the people gathered with us today and in the news media are familiar with the Department of Education's IDEAnet, which offers a broad array of educational data, statistics and other information to anyone interested. ACCESS INDIANA takes what we have done with IDEAnet and moves it to the next level, in terms of the types of information available and partnership with other agencies.

Second, I am encouraged by the partnerships that this project entails. Needless to say, as a former local superintendent quite familiar with the utility of our Educational Service Centers, I am delighted of the strong leadership role the service centers have played and will continue to play in this effort. At the same time, I and the Department of Education are looking forward to working with the state library and local community libraries. Libraries have always been key community resources in the collection and dissemination of information, and they will continue to play such a role in the information age. The same can be said of the role that our public universities will play in this project.

Third, I think that ACCESS INDIANA will help ensure that all areas of the state, including the many rural, somewhat isolated areas, have access to information and services.

The opportunity to participate in the building of Indiana's version of the information Superhighway paves the way for exciting new educational experiences as well as great opportunities for all of us.

ACCESS INDIANA will allow the statewide, and indeed, worldwide sharing of educational resources. In doing so, our teachers and students will be better able to understand and learn from the cultural diversity that exists throughout our state and nation.
ACCESS INDIANA is the vehicle by which the wealth of resources the INTERNET offers will be made available to our students, teachers and indeed our citizenry.

Working together, we can make certain that all students are better prepared to compete in this technological society, and better able to contribute their skills, knowledge and visions to the efforts of tomorrow.
Thank you.

See INDIANA FACT SHEET *p. 17*

INFOBYTES

THE CANADIAN INTERNET HANDBOOK

The Canadian Internet Handbook by Jim Carroll and Rick Broadhead is now available in the United States.

The Canadian Internet Handbook has established itself as a genuine Canadian publishing phenomenon. It has been on the Toronto Star's National Bestseller List for the last two months, and for six consecutive weeks, the book was the #1 selling non-fiction paperback in Canada. The authors believe it to be the first Internet book ever published to reach the #1 position on a general bestseller list. The Canadian Internet Handbook has also achieved bestseller status in several other prominent Canadian newspapers, including the Financial Post, Ottawa Citizen, and the Globe and Mail.

This is a significant accomplishment for a country the size of Canada. With over 35,000 copies printed and distributed in Canada alone, the Canadian Internet Handbook has far exceeded the normal Canadian bestseller status of 5,000 copies.

Due to great demand for the book in the U.S. market, the Canadian Internet Handbook is now being distributed in the U.S. by Prentice Hall.

The Canadian Internet Handbook provides Internet users with comprehensive directories of Canadian Internet resources, including Canadian Gopher servers, WWW servers, and Internet-accessible library catalogues. The book also includes a detailed listing of Canadian Usenet groups, and a list of over 700 organizations that have registered Internet domains in Canada. ther chapters discuss such topics as "What's Wrong With the Internet?", and "Where is the Internet Going in Canada?" The book covers all the popular Internet tools - Mail, Telnet, FTP, Gopher, WAIS, WWW - and provides many examples of how Canadian businesses and individuals are using the Internet. Shell Canada, Midland Walwyn, the Regina Public Library, and the Canadian Space Agency are some of the organizations profiled in the book. Jean Monty, President and CEO of Northern Telecom Limited, introduces the book with a foreword.

The full table of contents for the book is available via Gopher and the World Wide Web.

For pricing and order information, please point your Gopher client at:

gopher.prenhall.com

(Look under the Canadian Internet Handbook menu)

WWW users can point their browser at the following URL:

http://www.csi.nb.ca/handbook/handbook.html

If you don't have access to Gopher or WWW, or if you would like additional information, please contact the authors of the Canadian Internet Handbook at <handbook@uunet.ca>

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How Do Teachers Find Projects?

On May 26, 1994 Bev Hunter of BBN posted the following query on Kidsphere, COSN, and NII-Teach:

"How do teachers find and join networked projects and virtual communities on topics they are pursuing with their students? How do teachers on the Internet find and join projects relevant to their interests and their students interests? How do they locate groups and projects that are on separate networks like FrEdMail or Iris or AT&T network? We are working with schools that are completely project-based. The teachers in these schools want to find networked communities of teachers and students who are working on the same or related project topics. We are trying to devise a process for this kind of matchmaking. Would you describe the processes you have used to do this? If you will send me your answers I will organize them and provide the results. "

The responses Bev received are archived in the CoSN (Consortium for School Networking) Gopher.

The CoSN GOPHER pointer:
Type=0+
Name=How Teachers Find Projects
Path=0/CoSN Activities/COSNDISC/CoSNDISC Topics/How Teachers Find Projects
Host=digital.cosn.org
Port=70
Admin=Studly Gopher Admin +1 (612) 338-3970 <postmaster@digital.cosn.org>
ModDate=Wed Jun 1 21:45:21 1994 <19940601214521>
URL: gopher://digital.cosn.org:70/00/CoSN Activities/COSNDISC/CoSNDISC Topics/How Teachers Find Projects

(See **PROJECTS** on next page)

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INFOBYTES

(PROJECTS, *continued from p. 6)*

For the menu driven:
Root gopher server: cosn.org

1. Acknowledgments
2. A Disclaimer - Important!
3. CoSN Gopher Welcomes You!/
4. CoSN Logo.gif <Picture>
5. CoSN Information/
→ 6. CoSN Activities/
7. Networking Information/
8. Policy & Legislation/
9. Resources on the Network/
10. State and Local Network Projects/
11. Educational Conferences/
12. Related Organizations/

CoSN Activities

→ 1. COSNDISC/
2. CoSN-FARnet Project/
3. Newsletters/

COSNDISC

1. CoSNDISC FAQ
→ 2. CoSNDISC Topics/

CoSNDISC Topics

→ 1. How Teachers Find Projects

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On-Line Math Courses for Teachers

With support from the Annenberg/CPB Math and Science Project, Bank Street College of Education, in collaboration with the Education Development Center, will be offering twelve on-line mathematics forums beginning September 12, 1994. The Mathematics Learning Forums are designed to support classroom teachers in grades K-8 who choose to explore new mathematics teaching practices in their classrooms as recommended by current nation-wide mathematics reform efforts. Courses are offered for graduate credit, inservice credit, or personal enrichment through Bank Street's Graduate School of Education. Each course lasts for eight weeks and enrollment is limited to ten.

The forums are hosted by a faculty facilitator and focus on the "how" of mathematics instruction, providing ongoing support to teachers as they implement reform in their own classrooms. During the eight-week forum teachers engage in on-line discourse with colleagues as they plan, revise and implement activities with their students, view videotapes of students and teachers in a range of school settings, and discuss topic-relevant readings.

A computer and modem are required to participate in the forums. The forums can be accessed through a number of regional network services or directly through the Internet via Telnet. Participants are expected to be on-line approximately three times a week.

The schedule of courses and forum costs are listed below. For registration information please contact Nancy Ross at <nross@confer.edc.org> or 212/807-4207.

Mathematics Learning Forums Schedule and Costs:

September 12 - November 4
Classroom Discourse: Talking and Writing Mathematics (K-4)
Teaching Probability (5-8)
Cooperative Learning: Working in Groups (K-4)
Investigating Patterns in Mathematics (K-4)
Fractions: Exploring Equivalent Forms (5-8)
Engaged Learning: When Does a Child Really Learn? (K-4)

October 31 - December 23
Teaching Probability (K-4)
Fractions: Parts of a Whole (K-4)
Cooperative Learning: Working in Groups (5-8)
Assessing Students Through Focused Observations (K-4)
Investigating Patterns in Mathematics (5-8)
Assessing Students Through Questioning Techniques (5-8)

January 23 - March 17
Classroom Discourse: Talking and Writing Mathematics (K-4)
Teaching Probability (5-8)
Cooperative Learning: Working in Groups (K-4)
Investigating Patterns in Mathematics (K-4)
Fractions: Exploring Equivalent Forms (5-8)
Engaged Learning: When Does a Child Really Learn? (K-4)

March 20 - May 19
Teaching Probability (K-4)
Fractions: Parts of a Whole (K-4)
Cooperative Learning: Working in Groups (5-8)
Assessing Students Through Focused Observations (K-4)
Investigating Patterns in Mathematics (5-8)
Assessing Students Through Questioning Techniques (5-8)

COSTS
Graduate Credit: $455 per course + $50 registration fee
Inservice Credit: $200 per course + $50 registration fee
Personal Enrichment: $180 per course + $50 registration fee

Edulists

GRANTS-L
Grants and Funding for International Education and Research

GRANTS-L is an initiative of the Regents' Global Center of the University System of Georgia, and serves to promote external funding for international education and research. The listserv is intended to provide a forum for sharing experience, ideas, thoughts, comments and sources of information on the preparation and administration of contracts and grants.

Specific topics include, but are not limited to: proposal writing and editing; federal/state laws and regulations; campus policies and procedures; animal care and use; misconduct in science; procurement integrity; consulting; cost sharing; publication rights; budget development; direct and indirect costs; grant/contract administration; client relations; Internet resources; electronic editing and software; and so on.

To subscribe, send the following command in the BODY of mail to

LISTSERV@GSUVM1.GSU.EDU

sub grants-l YourFirstName YourLastName

Owner: James F. Pettus ibcjfp@gsusgi2.gsu.edu

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English-teachers Listserv

English-teachers is a public access list devoted to discussing matters relevant to the teaching of English, K-university. Acceptable topics of discussion include English language arts standards at the K-12 levels, professional opportunities, student assessment and evaluation, effective teaching approaches, the teaching of English as a second language, new professional resources for teachers of English, and the role of computers in the English classroom.

To subscribe, email to

majordomo@ux1.cso.uiuc.edu

the following message:

subscribe english-teachers@ux1.cso.uiuc.edu

(No subject heading necessary.)

To unsubscribe, email to majordomo@ux1.cso.uiuc.edu the following message:

unsubscribe english-teachers@ux1.cso.uiuc.edu

To post messages on this list, email to:

english-teachers@ux1.cso.uiuc.edu

Owner: John Chua chua@uxa.cso.uiuc.edu

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REGGIO-L
a new listserv for those interested in the Reggio Emilia, Italy, approach to early education

REGGIO-L@vmd.cso.uiuc.edu is a listserv that discusses issues and topics related to the Reggio Emilia, Italy, approach to early childhood education.

The ERIC Clearinghouse on Elementary and Early Childhood Education (ERIC/EECE) at the University of Illinois and the Merrill Palmer Institute at Wayne State University operate this listserv for educators, researchers, students, and parents interested in the Reggio philosophy and approaches to its implementation and adapta-tion in the United States and other countries.

To subscribe, send an email message to:

LISTSERV@vmd.cso.uiuc.edu

Leave the subject line blank, and in the body of the message, type:

SUB REGGIO-L Yourfirstname Yourlastname

Then, send the message. You will receive return mail that includes information on how the listserv works and on how to "unsubscribe."

List owners are Dianne Rothenberg, ERIC/EECE, and Patty Weissman, Merrill Palmer Institute.

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Edulists

SUPERK12 — A list to promote the development of high bandwidth Internet and supercomputing implementation and utilization in the K-12 environment.

To subscribe to SUPERK12, send a message to:

LISTSERV@suvm.syr.edu

Leave the subject line blank and in the body of the message type:

subscribe SUPERK12 YOUR NAME

(If you have an automatic signature that follows all your messages, remove this before you send it as it will result in error messages sent to you.)

The initial purpose of SUPERK12 will be to:

- connect people of similar interests and promote the free exchange of ideas, questions and opinions
- to advertise collaboration possibilities
- to develop resource lists so that the new capacity can be fully utilized to teach and not just to demonstrate the power of technology
- to develop a mentoring program for individuals and schools implementing this technology
- to develop electronic library materials such as glossaries, FAQ's, technology plans
- to find, develop, evolve, change and implement new leading edge technologies so that the children in our schools can feel the true excitement of learning and exploring.

SUPERK12 will be archived on the ERIC gopher at ericir.syr.edu.

List manager:
Richard Tkachuck, AskERIC Coordinator
ERIC Clearinghouse on Information & Technology
Center for Science and Technology, Syracuse University
Syracuse, New York 13244-4100
Internet: askeric@ericir.syr.edu
Do not write to this address to subscribe.
Voice: (315) 443-9114 Fax:(315) 443-5448

NCTM List —A new list has been formed to serve as a forum for the discussion of the National Council of Teachers of Mathematics standards.

This is an unmoderated list which is open to all interested parties.

To subscribe to NCTM-LIST, send a message to:

listproc@sci-ed.fit.edu

Leave the subject line blank and in the body of the message type:

subscribe nctm-l YourFirstName YourLastName

To send mail to all list members address it to:

nctm-l@sci-ed.fit.edu

For further information, contact:Kevin Barry
Internet: barry@sci-ed.fit.edu
Voice: (407)768-8000 x7235 Fax: (407)722-2863

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GLBL-HS — a list for students and teachers of global studies or world cultures.

This list is designed for discussion of world cultures, and events as well as a possible tutorial where help and information ranging from home work to lesson planning may be exchanged. In addition, possible world links or cross country links for students and teachers may develop.

To subscribe to GLBL-HS, send a message to:

LISTSERV@ONONDAGA or
listserv@ocmvm.onondaga.boces.k12.ny.us
in the body of the message type:

SUBSCRIBE GLBL-HS yourfirstname yourlastname

Archives of GLBH-HS mail items are kept in monthly files. You may obtain a list of files in the archives by sending the command : INDEX GLBL-HS

List Managers:
Jason Slack
jslack2@ocmvm.onondaga.boces.k12.ny.us
Cathy Spallone
cspallon@ocmvm.onondaga.boces.k12.ny.us

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

KIDLINK JAPAN

Project Corner

A Japanese language version of the successful K12 Project called KIDLINK has been established. Through it, 10 to 15 year old children around the world who speak Japanese or study it as a foreign language can converse freely with each other. The original English language version, now it its fifth year, was preceeded by the very successful KIDS-91, KIDS-92, KIDS-93 and KIDS-94 projects. These projects had more than 20,000 participating children from 60 countries.

Students are asked to respond to the following four questions,

❶ Who am I?,
❷ What do I want to be when I grow up?
❸ How do I want the world to be better when I grow up?
❹ What can I do NOW to help this come true?

In addition to the forum for children, there is also a forum for teachers, parents, and any other adults interested in helping with, discussing, or supporting the activities related to the project.

There are many countries where native speakers of Japanese reside, and Japanese is quickly becoming a popular foreign language in schools around the world. KIDLINK organizers are hoping people interested in the project can help them get in contact with Japanese-speaking children in different parts of the world by,

1. By sending me electronic mail addresses of TEACHERS or other people in who are involved with young people in this age group who study or speak Japanese.

2. By distributing information about KIDLINK JAPAN to people who might be interested, for example through local Bulletin Board Systems where many TEACHERS are users.

Information about KIDLINK can also be found through the Internet by sending simple email commands to:

LISTSERV@VM1.NODAK.EDU

Commands to this LISTSERV should always be put in the BODY the mail. Here are some options:

For text files and discussion lists encoded in Old-JIS kanji,

GET KIDLINK GENERALJ

will give you a general overview of KIDS-94 and the KIDLINK grassroots organization. The English version can be obtained by sending the command:

GET KIDLINK GENERAL

SUB KIDCAFEJ Yourfirstname Yourlastname

to subscribe to the Japanese language global dialog for children between the ages of 10 and 15. Here, they can get to know each other, exchange ideas, and talk about whatever they like. Anyone is welcome to read, but only children can post.

SUB KIDLEADJ Yourfirstname Yourlastname
to subscribe to the Japanese language global dialog for adults who are interested in education in Japanese.

For information (in English) on obtaining Japanese language software for Macintosh and IBM compatible computers, please send the command

GET KIDLINK KANJI

For further information contact:
Richard M. Pavonarius
Kidlink Japan Coordinator
Koga City Board of Education
Guidance and Training SectionI NiftyServe:

Internet Address: < richard@apic.or.jp>
or <JAB00172@niftyserve.or.jp>

* * *

For more information about KIDLINK follow the gopher trail to: Other Gopher/North America/US/Washington DC/Consortium for School Networking/Resources on the Network/Kidlink/Kidlink in the Classroom.

To get a list of all available files in the KIDLINK archives, send a message to ***<LISTSERV@vm1.nodak.edu>*** *In the TEXT of your message, write the command: GET KIDLINK MASTER*

For further information contact: send e-mail to: Editor/Project director: Odd de Presno at ***< opresno@extern.uio.no>***

The European Schools Project:
The Tunnel—Students World Wide
by David Marchant, UK Co-ordinator European Schools Project

Project Corner

At first there was nothing much to watch with E-mail, so when we said that The European Schools Project had links world wide, I 'm not sure that the full extent was appreciated. Nevertheless, Euro Tunnel offered us space for three computers and a printer, and unlimited telephone time. On Tuesday, May 3rd to Friday, May 6th they fed the small team and introduced us to the hard-bitten press corps next door.

The University of Kent generously gave us an INTERNET account for a month, and ESPTUNL was on the airways.

We invited contributions via our bulletin board. ESP controls this carefully. We dislike "junk" mail, so the board is only available for "serious" messages. But, my goodness, it is obviously read! What we were doing was published in the Los Angeles Times. ur third message was from a 72 year old grandmother who had read it there.

> From HRH The Duke of Edinburgh
>
> On this day which marks the official opening of the Cross-Channel tunnel, I have much pleasure in using the facilities of the European Schools Project to send my best wished to the children of the world.
>
> Philip

Two small teams of pupils and staff from Maidstone took part "on-site". Vinters Boys' School and Maidstone Grammar shared four days of hectic activity. On Tuesday May 3rd the pupils opened the mailboxes and started to word process. Messages from Peru, from Slovakia, from Alaska, from New Zealand were printed out and pinned onto our notice board. We knew we had friends abroad,(we work class to class in 22 countries) but neither Eurotunnel nor ESP had foreseen this response. Wednesday was very busy! Visitors, phonecalls, photocalls enlivened the team's day. Highlights that morning were messages of goodwill from two MPs, Ann Widdecombe and Andrew Rowe to the world's pupils, a good-luck note from a group of Welsh schools (in Welsh) and congratulations from the French Embassy in London (in French).

E-mail is a powerful tool. It stimulates pupils with its immediacy. And such immediacy can have a profound effect on the delivery of the curriculum. One correspondent pointed out that the Japanese had a longer tunnel. This needed answering. So research was needed. Many pupils were asking the team detailed questions as well as "How much is a ticket?" Much of Thursday was spent by one team trying to respond to some of these queries.

On the Friday we tried a real life conversation through the courtesy of EdEx in London who sponsored the morning with their chat facility. Suddenly the distances shrank. Youngsters grouped around computers in Maidstone, Glasgow (North Kelvinside), Folkestone, and Burgwegel (in Germany) were sharing this historic day. The ESPTUNL team were watching French and British Television and typing news-flashes to the others. Then the 'phone rang. A thirteen year old answered to discover it was Buckingham Palace. Prince Philip had marked this historic occasion with a message for the world's children via our pupils. That was enhancing the curriculum indeed.

Messages of congratulations

Messages of goodwill and congratulations flooded into a special communications centre in the education room at Eurotunnel's Exhibition Centre, Folkestone, to mark the inauguration of the Channel Tunnel.

They came from round the world, from young and old, through an electronic mail communications initiative organised by the European Schools Project, funded through the education section of Eurotunnel's Public Affairs Department.

The project was born out of a research programme at the University of Amsterdam initially involving four schools, two in the United Kingdom, one in Germany and one in the Netherlands.

There are now 22 countries who share work and information through this electronic mail system. Membership in the UK is growing steadily, with a nucleus of schools in the Maidstone and Rochester area, one of which started the project.

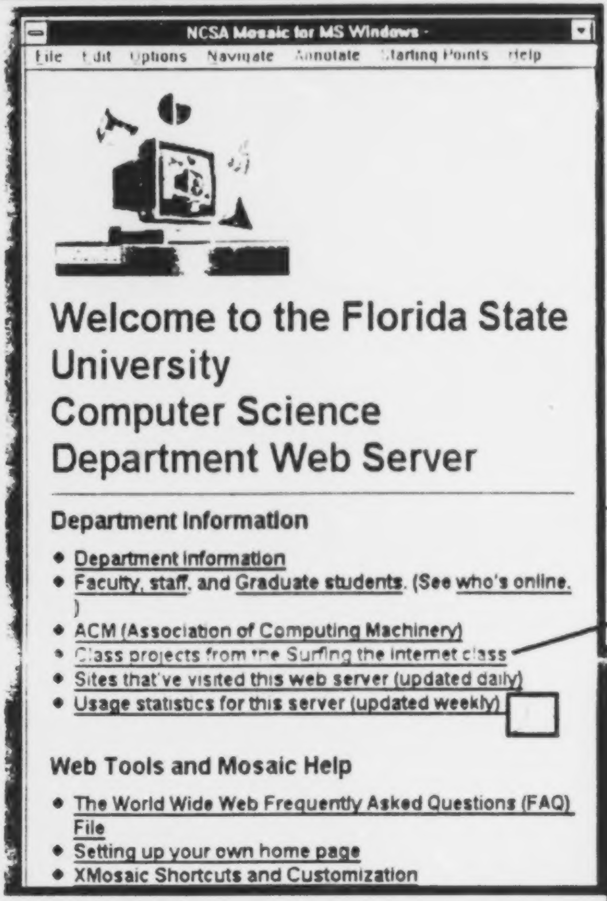
The inauguration of the channel Tunnel attracted a great deal of global attention, messages came from Peru, Canada, Spain, Alaska, South Africa, New Zealand, the United States, Slovakia, Germany, France, and Wales. The University of Kent, Canterbury, set up the mail box for the messages to be received.

On Friday May 6 an on-line computer conference was set up by the Education Exchange, London, with links to Germany, Belgium, Denmark and the United States, in a live exchange of messages.

* * *

For more information about ESP, contact Hubert CHRISTIAEN at: <HUBERT@kc.kuleuven.ac.be>

A TOUR OF The Florida State University Computer Science Department Web Server


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Welcome to the Florida State University Computer Science Department Web Server

Department Information

- Department information
- Faculty, staff, and Graduate students. (See who's online.)
- ACM (Association of Computing Machinery)
- Class projects from the Surfing the internet class
- Sites that've visited this web server (updated daily)
- Usage statistics for this server (updated weekly)

Web Tools and Mosaic Help

- The World Wide Web Frequently Asked Questions (FAQ) File
- Setting up your own home page
- XMosaic Shortcuts and Customization

1 Point to The Florida State University Computer Science Department webserver at :

URL http://www.cs.fsu.edu

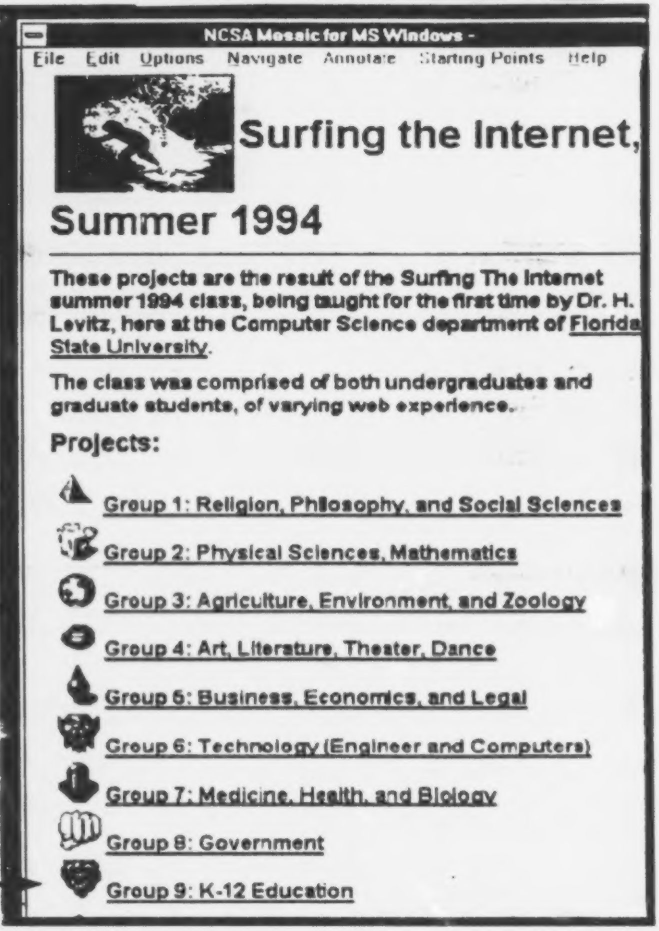
Click to Surfing the Internet Class 2

The first Surfing the Internet class was taught for the time at FSU this summer. The entire focus of the class was learning to use Mosaic, creating HTML documents, and learning about the web and internet in general.

Twelve group projects are linked into the main cover page, covering a very wide range of topics. The URL to go di-

URL: http://www.cs.fsu/surfing.html

Click on Group 9: K-12 Education 3


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Surfing the Internet, Summer 1994

These projects are the result of the Surfing The Internet summer 1994 class, being taught for the first time by Dr. H. Levitz, here at the Computer Science department of Florida State University.

The class was comprised of both undergraduates and graduate students, of varying web experience.

Projects:

- Group 1: Religion, Philosophy, and Social Sciences
- Group 2: Physical Sciences, Mathematics
- Group 3: Agriculture, Environment, and Zoology
- Group 4: Art, Literature, Theater, Dance
- Group 5: Business, Economics, and Legal
- Group 6: Technology (Engineer and Computers)
- Group 7: Medicine, Health, and Biology
- Group 8: Government
- Group 9: K-12 Education

Continued on p 13

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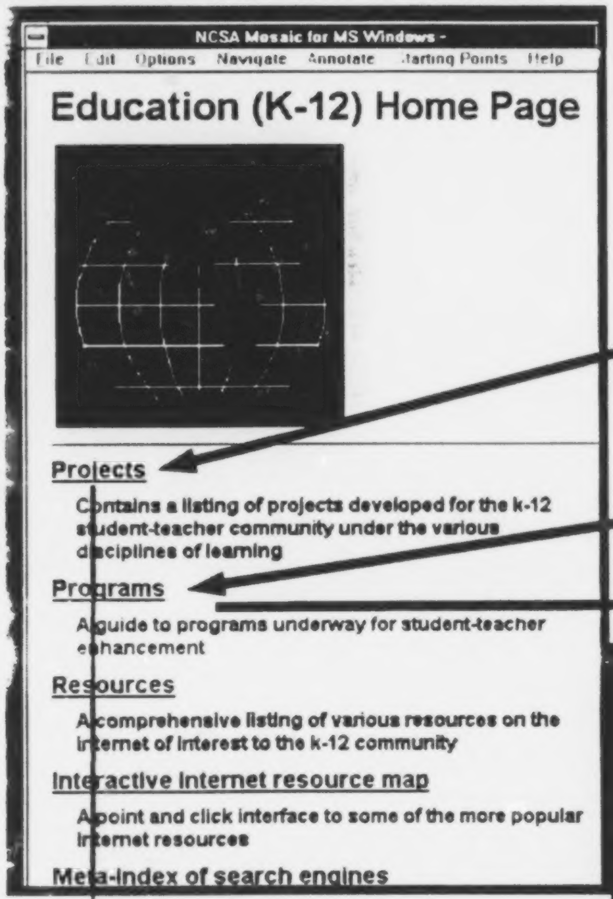
A TOUR OF The Florida State University Computer Science Department Web Server


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Education (K-12) Home Page

Projects

Contains a listing of projects developed for the k-12 student-teacher community under the various disciplines of learning

Programs

A guide to programs underway for student-teacher enhancement

Resources

A comprehensive listing of various resources on the internet of interest to the k-12 community

Interactive internet resource map

A point and click interface to some of the more popular internet resources

Meta-index of search engines

Click on Projects . 4a

OR

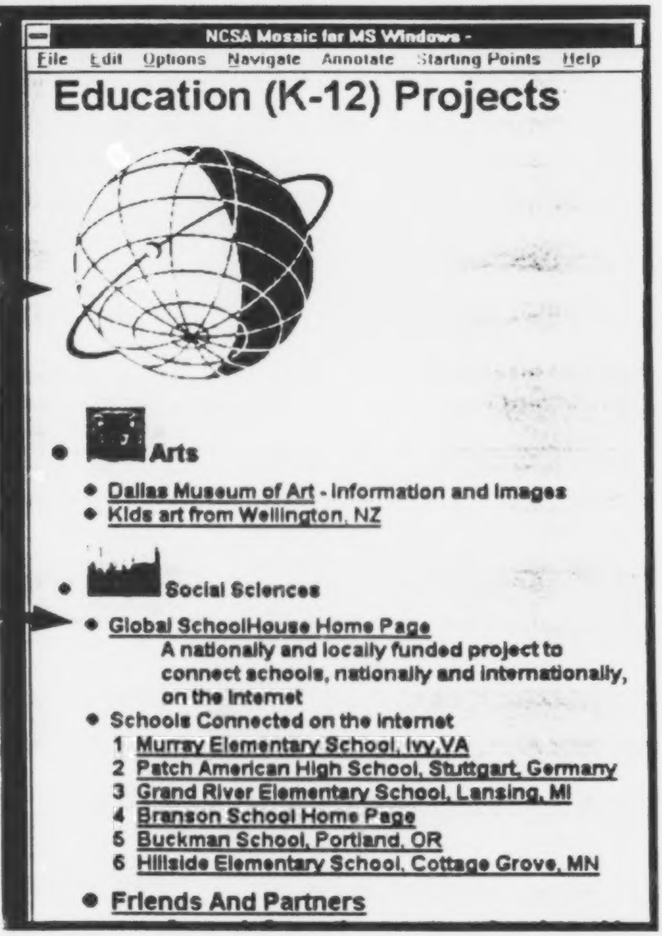
Click on Programs 4b

See 5b on page 14

URL: //www.csu.fsu.edu

5a Click on Global Schoolhouse Project

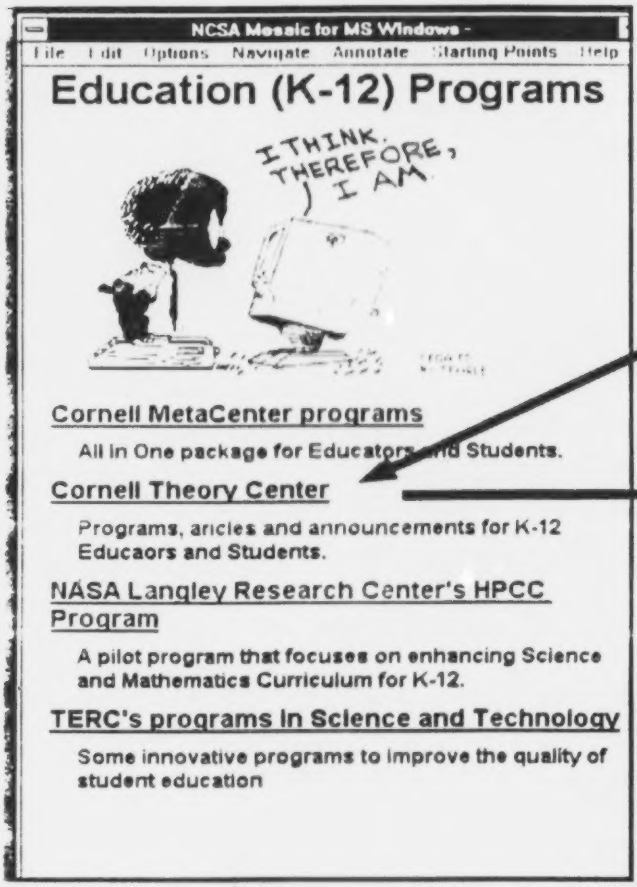
URL:
http://www.cs.fsu.edu/~durga/projects.html


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help

Education (K-12) Projects

- Arts
  - Dallas Museum of Art - Information and Images
  - Kids art from Wellington, NZ
- Social Sciences
  - Global SchoolHouse Home Page
    A nationally and locally funded project to connect schools, nationally and internationally, on the internet
  - Schools Connected on the internet
    1. Murray Elementary School, Ivy,VA
    2. Patch American High School, Stuttgart, Germany
    3. Grand River Elementary School, Lansing, MI
    4. Branson School Home Page
    5. Buckman School, Portland, OR
    6. Hillside Elementary School, Cottage Grove, MN
- Friends And Partners

A TOUR OF The Florida State University Computer Science Department Web Server


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help
I THINK, THEREFORE, I AM

Education (K-12) Programs

Cornell MetaCenter programs

All in One package for Educators and Students.

Cornell Theory Center

Programs, aricles and announcements for K-12 Educaors and Students.

NASA Langley Research Center's HPCC Program

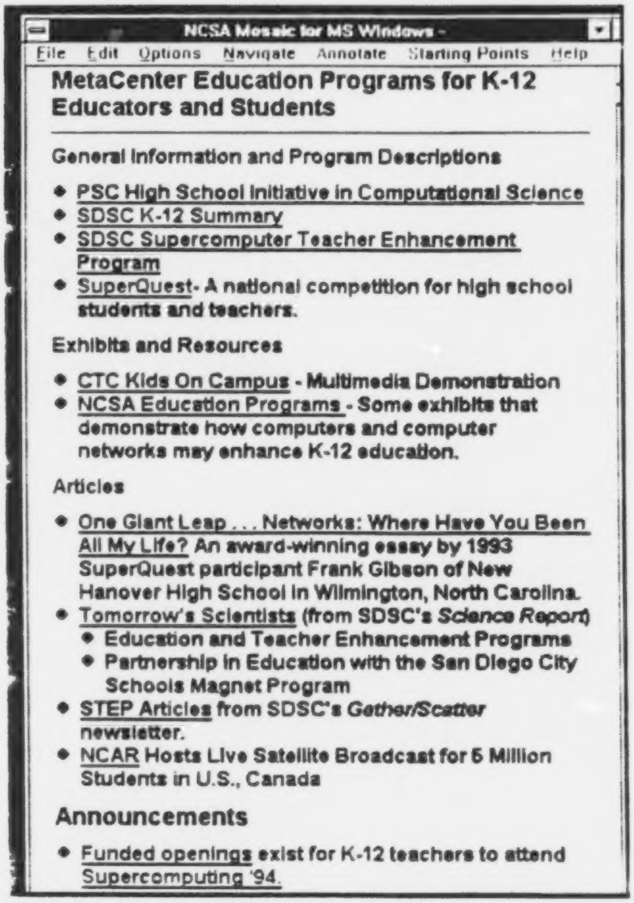
A pilot program that focuses on enhancing Science and Mathematics Curriculum for K-12.

TERC's programs in Science and Technology

Some innovative programs to improve the quality of student education

5b Click on Cornell Theory Center

URL:http://www.cs.fsu.edu/~durga/programs.html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MetaCenter Education Programs for K-12 Educators and Students

General Information and Program Descriptions

- PSC High School Initiative in Computational Science
- SDSC K-12 Summary
- SDSC Supercomputer Teacher Enhancement Program
- SuperQuest- A national competition for high school students and teachers.

Exhibits and Resources

- CTC Kids On Campus - Multimedia Demonstration
- NCSA Education Programs - Some exhibits that demonstrate how computers and computer networks may enhance K-12 education.

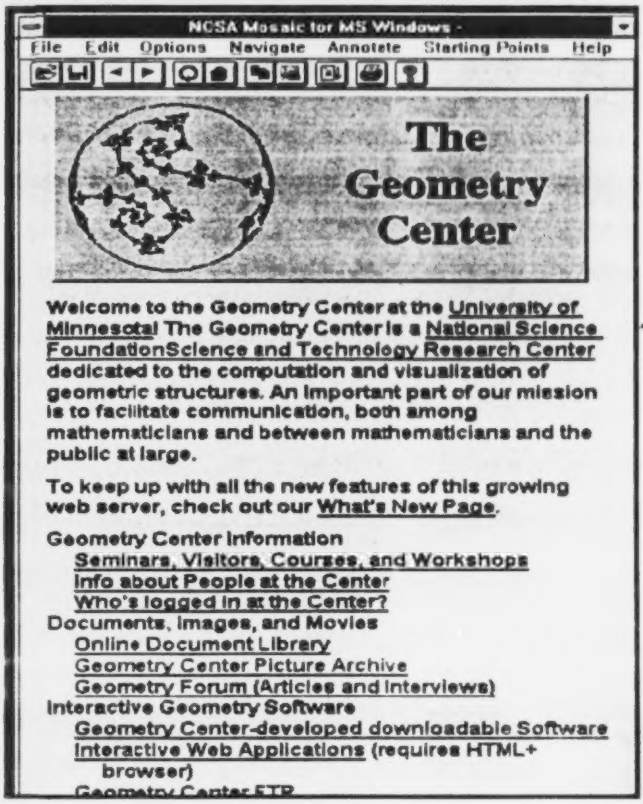
Articles

- One Giant Leap . . . Networks: Where Have You Been All My Life? An award-winning essay by 1993 SuperQuest participant Frank Gibson of New Hanover High School in Wilmington, North Carolina.
- Tomorrow's Scientists (from SDSC's *Science Report*)
    - Education and Teacher Enhancement Programs
    - Partnership in Education with the San Diego City Schools Magnet Program
- STEP Articles from SDSC's *Gather/Scatter* newsletter.
- NCAR Hosts Live Satellite Broadcast for 5 Million Students in U.S., Canada

Announcements

- Funded openings exist for K-12 teachers to attend Supercomputing '94.

URL:
http://www.tc.cornell.edu/Edu/MetaCenter/Eduk-


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help
The Geometry Center

Welcome to the Geometry Center at the University of Minnesota! The Geometry Center is a National Science FoundationScience and Technology Research Center dedicated to the computation and visualization of geometric structures. An important part of our mission is to facilitate communication, both among mathematicians and between mathematicians and the public at large.

To keep up with all the new features of this growing web server, check out our What's New Page.

Geometry Center Information
- Seminars, Visitors, Courses, and Workshops
- Info about People at the Center
- Who's logged in at the Center?

Documents, Images, and Movies
- Online Document Library
- Geometry Center Picture Archive
- Geometry Forum (Articles and Interviews)

Interactive Geometry Software
- Geometry Center-developed downloadable Software
- Interactive Web Applications (requires HTML+ browser)
- Geometry Center FTP

Here is a quick overview of the contents of the exhibit:

QuasiTiler: by Eugenio Durand
Try your hand at creating beautiful nonperiodic tilings of the plane, including the famous Penrose tilings. QuasiTiler also helps you visualize the multidimensional lattices used to generate these tilings.

Cyberview: by Paul Burchard
An interactive 3D object viewer for the World Wide Web. You can pick an object out of our predefined library, or learn about the OOGL format and define your own objects.

Lafite: by Adam Deaton
Learn about the symmetry groups of the hyperbolic plane through Escher-like patterns, which are created by replicating a motif according to the symmetry group you choose.

Teichmuller Navigator: by Deva van der Werf
Explore the space of all different angle geometries on a surface of genus two. You can navigate through the space by moving vertices of a tiling of the hyperbolic plane by octagons.

Unifweb: by Carlos O'Ryan
Discover and visualize Riemann surfaces having a specified group of symmetries. Different families of surfaces can be constructed for the same symmetry group by choosing different generators and relations.

Please send mail any comments to: webmaster@geom.umn.edu, burchard@geom.umn.edu or daeron@geom.umn.edu.

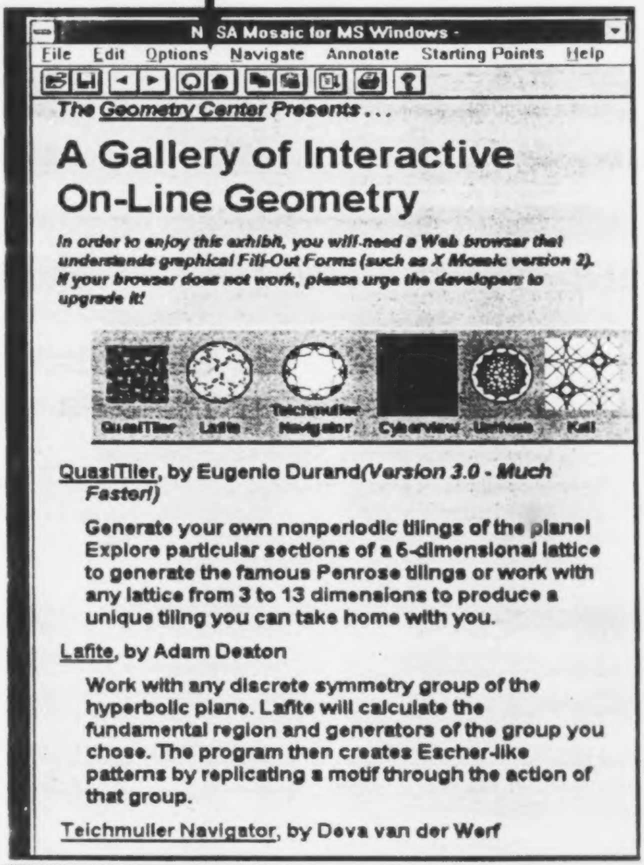
The Geometry Center

URL: http://www.geom.umn.edu/

The Geometry Center magnificently presents a gallery of five new interactive World Wide Web applications, designed for visualizing and experimenting with geometric ideas in 2, 3, and even higher dimensions.

These applications demonstrate the innovative use of fill-out forms to maximize interactivity with virtual objects. If you're looking for something exciting and new to explore, check this one out. Point yourself to the following URL:

URL : http://www.geom.umn.edu/apps/gallery.html


NCSA Mosaic for MS Windows -
File Edit Options Navigate Annotate Starting Points Help
QuasiTiler
Lafite
Teichmuller Navigator
Cyberview
Unifweb
Kali

The Geometry Center Presents . . .

A Gallery of Interactive On-Line Geometry

In order to enjoy this exhibit, you will need a Web browser that understands graphical Fill-Out Forms (such as X Mosaic version 2). If your browser does not work, please urge the developers to upgrade it!

QuasiTiler, by Eugenio Durand*(Version 3.0 - Much Faster!)*

Generate your own nonperiodic tilings of the plane! Explore particular sections of a 5-dimensional lattice to generate the famous Penrose tilings or work with any lattice from 3 to 13 dimensions to produce a unique tiling you can take home with you.

Lafite, by Adam Deaton

Work with any discrete symmetry group of the hyperbolic plane. Lafite will calculate the fundamental region and generators of the group you chose. The program then creates Escher-like patterns by replicating a motif through the action of that group.

Teichmuller Navigator, by Deva van der Werf

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Richard Riley On Goals 2000, continued from p 4

like their school's namesake, these students are travelling to new lands – their classrooms are linked to classrooms across the globe– and they are sharing ideas on everything from how to better themselves to how to improve their drug-ravaged communities.

Goals 2000 initially targeted $5 million (increased to $50 million in the President's proposed '95 budget), to implement a strategy for using technology in schools. This allocation includes the establishment of a technology office in the Department ... headed by Dr. Linda Roberts who has helped the Department begin to take aggressive role in this area.

But, the amount of funding does not reveal the truly revolutionary nature of this authorization. Like Neil Armstrong, we have taken a giant leap ... and ours will help the young people in this country learn more and have a better future.

Goals 2000 also establishes a framework for other legislative efforts that will also work to help incorporate technology in our schools. Last week, for instance, the President signed into law the School-to-Work Opportunities Act which applies the high standards of Goals 2000 to individual learning programs that provide students with real skills and expertise valuable to a real career. It will train young people to use state-of-the-art equipment – and the newest technologies – to prepare for careers or college. These programs turn dreary classrooms into places where learning is enjoyable and challenging. These are the kinds of education programs that all parents want for their children.

Ironically, what is too often lost in the discussion of higher standards is the corresponding role that teachers can and should play in this revolutionary reform. We must make clear to parents, to students, to communities, to educators, and to teachers themselves, the simple but important message that Every Teacher Matters. Every teacher can make a difference if they are properly prepared to do so and if they are given the timore than 30,000 teachers use technology in more productive ways in their classrooms.

And the Internet offers new opportunities for teachers to talk to one another about the progress of individual students or about the ways as a way to link students up with one another and the world. This conference is an important first step. Our reauthorization proposal for the Elementary and Secondary Education Act, which devotes $700 million to professional development, including resources for training in the newest technologies, is another way.

A report on Time and Learning released last week by the Department of Education found that teachers believed that their lack of time was their biggest barrier to providing their students a strong education. There were simply not enough hours in the day for teachers to develop effective lessons, eaningfully assess student work, or communicate with students, parents or other family members. Nor was there time to interact with their colleagues and observe and discuss new teaching strategies.

Technology offers us one way to overcome these obstacles. It is, as the report accurately noted, a "great unrealized hope" in education reform. It can revolutionize teaching and learning by improving the effectiveness of existing time and by making more time available. The school day, as we now know it, will change. We can transform the assembly-line mentality of today's school - its blackboards and textbooks -- to the creative and personalized approach of adding computers and interactive software to the teaching and learning mix.

While still not enough, there are a growing number of training opportunities. The National Teaching Training Institute, for example, founded by New York public television station W.N.E.T., operates a summer institute where teachers train teachers how to integrate new technologies, especially video, into the math and science curriculum. In the three years since its creation, N.T.T.I. has helped more than 30,000 teachers use technology in more productive ways in their classrooms.

And the Internet offers new opportunities for teachers to talk to one another about the progress of individual students or about methods of learning and teaching. It will save them time in their busy days.

I am pleased to say that this Department intends to support projects that will develop and demonstrate these teaching and learning friendly kinds of applications. The 1995 budget proposal for the Goals 2000 technology initiative includes funding for demonstration projects of on-line and telecommunications resources that can make a difference in connecting parents and kids ... and kids and learning. And it also includes added support for networking projects for teacher professional development ... for applications that will support learning in the core curriculum areas to help et challenging individual state performance standards ... and to facilitate an effective transition from secondary school to employment.

One of the greatest benefits of these new technologies is that they offer us the opportunity to reconnect parents to their children's lives and their schooling. In my travels across the country, I often ask parents to slow down their lives and spend time with their children, to share in their schoolwork. Technology provides the perfect opportunity for this shared experience. Children and their parents will be able to sit down next to each other at the computer and share in the enjoyment and challenges it creates. All those who want to learn – including parents – will be able to ride the Superhighway.

(See **Richard Riley** *on page 24)*

ACCESS INDIANA: FACT SHEET, continued from p. 5

ACCESS INDIANA is a unique partnership of schools, libraries, local government and the private sector to develop a comprehensive information technology strategy to provided widely available voice, data and video access to every school, library, community, business and private citizen in Indiana.

On ramp to the Information Superhighway-The Information Superhighway is currently part of a unified plan by the federal government to bring universal access to voice, data and video communications. Its precursor Internet (a world wide date network) already exists. The ACCESS INDIANA PARTNERSHIP will facilitate Indiana's participation in the Internet and the Information Superhighway.

The Internet is a worldwide network operated by the National Science Foundation and is the precursor to the Information Superhighway. It is known as a "virtual" network in the sense that is not a single physical network but a series of networks all connected to one another. When Hoosiers connect tot he Internet they will have access to everyone else connected in the world who is con-nected. Generally, one connects through an Internet host (or hub) with a direct phone line or modem. Services include e-mail, bulletin boards, chat services and information from around the world. Users can send and receive messages, documents, and date from any other user or group of users. The Internet currently has hundreds of thousands of users and is growing at 15% rate of 15% per month.

With the pioneering leadership already demonstrated by our universities (IHETS), the department of education (IDEAnet), state government (Intelenet) and our telecommunications industry (Opportunity Indiana and STARnet) Indiana's unique Partnership-ACCESS INDIANA will continue technology leadership into the Information age.

Indiana's Network Strategy

Rather than create it's own network, Indiana will facilitate Internet. In so doing there are several key components.

1. *Creating local Internet hubs or hosts*

Since information is generally carried over phone lines it is important to locate hubs in every local phone exchange to avoid long distant tolls and have distributed use.

2. *Creating a critical mass of public Internet users*

The state will enhance the availability, price, and ease to use of the Internet by collecting the potential public use into a single state request for services. The state will serve as the facilitator with the responsibility for management and costs shared by the public users. This will include the development of electronic Help Desks, and user friendly menus for ease of use.

3. *Private sector response to request for Internet services*

The private sector will have the opportunity to develop the electronic network infrastructure throughout the state.

4. *General public and private business use of the Internet*

The successful bidder of the Internet services will also be providing connections for the general public and private business. The public sector request for services should enhance the cost and accessibility for other users by dramatically increasing the market of users.

5. *Community Nets*

The state will seed and enhance the development of local community networks through a competitive matching grant process. The state will also provide information and technical assistance. Community Nets will be locally organized and operated and facilitate data communications within a community between schools, libraries, universities, hospitals, local businesses and the general public. Gateways to Internet and other networks will be part of this service. This will serve to keep local traffic local, develop local infrastructure and provide Gateways to the rest of Indiana and the world. Community Nets are currently being developed in Bloomington, Evansville and the Michiana area.

6. *Citizen access to state government*

The State of Indiana will begin to make state information available through the Internet and direct-to-agency telephone connections. Eventual plans will include allowing citizens to electronically transact their public or private business with the state from their home, business or a public access location.

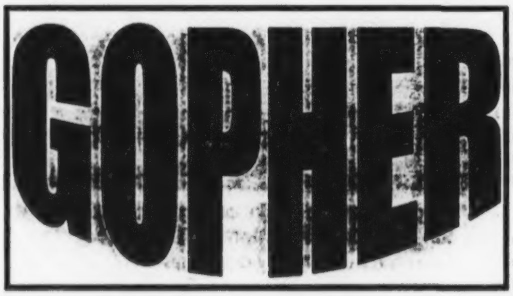
7. *Interactive (two-way) video*

The ACCESS INDIANA PARTNERSHIP will work with Opportunity Indiana, StarNet, the universities and other public and private sector partners to facilitate and coordinate the development and deployment of interactive video technology and programming throughout Indiana. The goal is to provide accessibility and reasonably priced services to a wide array of users including schools, libraries and universities.

8. *Multi-year, multi-phase*

It is important to recognize that the ACCESS INDIANA PARTNERSHIP'S task is difficult because of the rapidly changing technology and the array of interests involved. That is why especially with telecommunications strategy it is important to have a collaborative comprehensive plan for Indiana's participation in the Information Superhighway. By definition, this will be a multi-year, multiphase strategy that will continue to develop. The State of Indiana will devote approximately two million dollars as a catalyst for the first stage of development.

Yale Peabody Gopher



The Peabody Museum of Natural History at Yale University has opened access to its collections data via gopher. The Peabody gopher is found at:

gopher.peabody.yale.edu port 70

The initial gopher offering is 255,268 specimens/lots, which translates to a little under a million individual specimens. The museum's approximate holdings and the composition of the gopher are as follows ("+" means there are plans to provide material later this summer):

Curatorial Division	Cataloguing Methodology	Number Of Items	Items On Gopher
Anthropology	lot	267,000	+
Botany/Paleobotany	individual	360,000	16,809
Entomology	indiv./lot	900,000	5,705
Invertebrate Paleontology	lot	300,000	24,189
Invertebrate Zoology	lot	300,000	8,584
Meteorites	indiv./lot	500	+
Mineralogy	individual	40,000	29,115
Scientific Instruments	individual	2,000	573
Vertebrate Paleontology	individual	120,000	28,132
Vertebrate Zoology			
VZ-Herpetology	individual	14,400	+
VZ-Ichthyology	lot	9,908	9,908
VZ-Mammalogy	individual	4,806	4,806
VZ-Ornithology	individual	113,648	113,648
VZ-Osteology	individual	13,799	13,799

The gopher data will be updated periodically; the last update times are found in the "Welcome and Introduction" file on the main menu. Comments about the data are welcome, and should be directed to the Collections Manager(s) in the respective curatorial discipline(s) of your interest. You can find their addresses in the "Staff Electronic Mail Addresses" file on the main menu.

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The United Nations Children's Fund (UNICEF)'s Gopher

UNICEF is now disseminating its public information material on the Internet. A UNICEF Internet "Gopher" now offers the full text of documents ranging from press releases to major publications.

The Internet offers an unprecedented opportunity to mobilize public support for children, according to UNICEF Executive Director James P. Grant."The information superhighway is helping to create a virtual global village, bringing us together and keeping us in touch with one another. Computer networking is one way to promote widely and effectively the interests of the most vulnerable among us -- children.

The UNICEF Gopher presents the full text of the Convention on the Rights of the Child, which has been ratified by 160 countries since it was adopted by the United Nations General Assembly in 1989. Among other full texts available are the Declaration, the Plan of Action and the Goals for Children for the Year 2000 adopted by the World Summit for Children in 1990.

At a press conference in Brussels on June 21, UNICEF released the second issue of its annual publication, The Progress of Nations, which ranks countries according to their achieve-ments in child development -- health, nutrition, education, protection, and survival -- as well as family planning and progress for women. The Gopher offers the publication's full text.

The Gopher also carries The State of the World's Children report, the UNICEF annual flagship publication that analyses the global situation of children and advocates what needs to be done for them. Other items include human interest features on programmes benefiting children in developing countries, newsletter articles on children's issues, and information kits, brochures and booklets advocating the rights and needs of children.

The UNICEF Gopher can be accessed by telnet, logging in to host name <hqfaus01.unicef.org> and typing user id <gopher>. No password is required.

Using gopher client, the gopher server can be connected with the following parameters: Type=1, Port=70, Path=(blank) and host=hqfaus01.unicef.org.

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WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION GOPHER

Wisconsin has created a state government agency gopher called "Badger". The state's Department of Public Instruction and its Division for Libraries and Community Learning (the Wis. state library agency) is actively contributed information to the Wisconsin state gopher.

You can access Badger with a gopher client or by Telnet to the domain:

badger.state.wi.us

For the Telnet log in enter: wigoph

For the Telnet password and vt100 emulation just hit <enter> without entering anything.

(Continued on next page)

Once you get to the Wis. State gopher, step through the following menus to get the Department of Public Instruction and the Division for Libraries and Community Learning.

--> Wisconsin State Agencies, Departments and Governmental
    --> Wisconsin Dept. of Public Instruction
        -->Wis. Division for Libraries and Community Learning

Badger is still very much under construction. At this time there is very little Wisconsin information available, but the gopher is linked to the gopher at the Federal Department of Education and to over 80 other education-related gophers.

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CANADA NOW HAS AN EXCELLENT SITE FOR INFORMATION ON NETWORK CIVIL RIGHTS ISSUES

Electronic Frontier Canada (EFC) was founded to ensure that the principles embodied in the Canadian Charter of Rights and Freedoms are protected as new computing, communications, and information technologies emerge.

EFC is working to shape Canada's computing and communications infrastructure and the policies that govern it, in order to maintain privacy and other democratic values. Their work focuses on the establishment of:

* clear institutional policies and new laws that guarantee citizens' basic rights and freedoms as new computing, communications, and information technologies emerge.

* a policy of common carriage requirements for all network providers so that all forms of speech and expression, no matter how controversial, will be carried without discrimination.

* a diverse electronic community that enables all citizens to have a voice in the information age.

the EFC gopher can be reached at
Gopher:// gopher.ee.mcgill.ca

The gopher has the following topic headings

About Electronic Frontier Canada ...
community
EFC Logo
EFC Press Releases
Canadian Charter of Rights and Freedoms
Canadian Law
Canadian Court Decisions
Canadian Polls
Publication Ban
CANARIE
Customs Memo
--> Usenet News Policy?
Canadian Media Books

GOPHER

Arizona State Gopher —Links to Major Edugophers

Gene Glass has compiled a collection of 16 electronic journals and about 75 education gophers and programed links to them from the Arizona State College of Education gopher. Periodically, Gene will review all these links periodically and remove broken ones so you can be assured of a fairly complete listing of educational gophers. To get to these resources, gopher to info.asu.edu and enter the ASU CAMPUS WIDE INFORMATION directory where you will find College of Education. The pointers are in the Electronic Journals and Other Education Related Gophers directories.

For Gopher administrators who wish to program a link, the specs are Type=1; Host=info.asu.edu;Port=70; Path=1/asu-cwis/education/other and 1/asu-cwis/education/journals.

Gene would appreciate hearing from you about new gophers that you've found to be of significant interest to educators. If you find a gopher that you think is valuable to educators, let Gene know. His e-mail address is < glass@asu.edu>

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Hellenic Civilization Gopher

A new Gopher server has been installed at Network Managment Center of Academic and Research Network of Greece, ARIADNE, located at DEMOCRITOS research center. This server provides Internet access to the HELLENIC CIVILIZATION database (currently developing) and to other resources. The HELLENIC CIVILIZATION database contains information of Ancient Greek Arts (Sculpture, building, Museum, etc) and litterature.In the database is also contained a presentation of every Museum of Greece and Cyprus.

The identifying info for this server and the HELLENIC CIVILIZATION database are:

Type=1
Name=Ariadne's N.O.C Gopher Server
Path=
Port=70
URL: gopher://ithaki.servicenet.ariadne-t.gr:70/1

Type=1
Name=HELLENIC CIVILIZATION DATABASE
Path=1/HELLENIC_CIVILIZATION
Port=70
URL: gopher://ithaki.servicenet.ariadne-t.gr:70/11/HELLENIC_CIVILIZATION

The Digital Calendar

September

7-8 September. **Breaking The Barriers to the National Information Infrastructure** ANA Hotel, Washington, D.C. Sponsored by The Council on Competitiveness and The Clinton Administration Information Infrastructure Task Force. Up-to-date information on the conference will be available on the IITF computer bulletin board system. Access through the Internet: gopher/telnet servers <iitf.doc.gov>. Access through telephone modem: (202) 501-1920 (parameters- N, 8, 1) Or call The Council on Competitveness at +1 202 785-3990.

12-16 September **NetWorld+Interop 94 ATLANTA** Georgia World Congress Center, Atlanta, GA. More than 600 leading LAN,WAN, and telecommunications companies along with 60,000 networking professionals will be in attendance at NetWorld+Interop. For more information call: 1-800-488-2883

19-23 September. **EW-ED'94** in Crimea, Ukraine. The East-West Conference on Computer Technologies in Education (EW-ED'94) is the third in the series of conferences designed to report the best research in the field of Computer Techno-logies and Education and to provide oppor-tunities for the exchange of information and ideas between Eastern and Western scientists. For further information, contact: Simferopol:Dr Svetlana Dikareva, Computer Center, Simferopol State University, Yaltinskaya, 4, Simferopol, Crimea, Ukraine 333036; E-mail: cted94%ccssu.crimea.ua@ussr.eu.net; tel: 0652 23-23-82; fax: 0652 23-23-10

25-28 September **Learning Environment Technology - Australia 1994 (LETA 94)** Adelaide, Tea Tree Gully campus of the Torrens Valley Institute of Vocational Education. LETA 94 is an international event including a Conference and inter-activeExpo. It is de-signed to provide delegates from Australia and overseas with a range of experiences in learning technology, its application to the learning environment, the built environment is which technology is used, and the management of technology based learning environments. For more information contact: LETA 94 Conference, C/- SAPMEA Conventions, 80 Brougham Place,
North Adelaide
South Australia 5006
tel: international + 618 239 1515
fax: international + 618 239 1566
email: rleonard@nexus.edu.au

October

11-14 October **PNC - People, Networks & Communication '94** Honolulu; Island of Oahu - " The Gathering Place ", Hawaii;
Mid-Pacific Conference Center, Hilton Hawaiian Village Resort. Sponsored by The Pacific Network Consortium Limited. Contact Information: Conference Chairman: Dr. Ernest Kho, Jr., Chairman - Department of Chemistry, University of Hawaii - Hilo. Tel: 808.933.3383; Fax: 808.933.3693; E-mail: ekho@uhunix.uhcc.hawaii.edu

13-15 October **Schools for the Future: An American Renaissance**; San Antonio, Texas, Marriott River Center Hotel. Hosted by the Renaissance Group and the Sam Houston State University For information contact:
<ICC_DRL@SHSU.EDU>

14-16 October **MATHEMATICS, SCIENCE & TECHNOLOGY: PARTNERS FOR THE FUTURE**, California State University, Fresno, CA. Sponsored by The California Mathe-matics Council Central Section and The School Science and Mathematics Association. For information contact: PROGRAM CHAIR,Elizabeth Sullivan; FCOE, 1111 Van Ness
Fresno, CA 93721; tel: 209-265-3071
e-mail: **< esulliv@eis.calstate.org>**

25-26 October **Multimedia Schools '94** The Practical, How-to Conference & Expo for School Professionals Working with Multimedia, CD-ROMS, Online & The Internet. Hyatt Regency, San Francisco, CA. For an Advance Program tel: +1 203-761-1466 or 800-248-8466; fax: +1 203-761-1444, or mail coupon to: MA'94, 462 Danbury Road, Wilton, CT 06897-2126

31 October to 3 November **EDUCOM'94, Transforming Education, Measures and Milestones,** San Antonio Convention Center, San Antonio, Texas. Hosted by the University of Texas at San Antonio and Trinity University. The premier conference on information technology in higher education. More detailed information about EDUCOM'94 and preconference seminars can be obtained via WAIS, Gopher, or ananymous FTP from the EDUCOM server at <educom.edu> or by sending e-mail to <conf@educom.edu>, or by calling +1 202 872-4200.

November

3- 5 November **15TH ANNUAL INSTRUCTIONAL TECHNOLOGY CONFERENCE** at the Sheraton Tacoma, Tacoma, WA, USA. Hosted by the Instructional Technology Standing Committee of the Communications Technology Center of the Washington State Community and Technical Colleges. For information send e-mail to:

< institute@ctc.ctc.edu>
FAX: (206) 881-4470
voice: (206) 881-4409
snail mail: Communications Technology Center, 3860 - 159th Ave NE, #150, Redmond, WA 98052

10-13 November **TEL Ed'94** Albuquerque Convention Center in Albuquerque, NM. This conference is one of the premier conferences for educators on distance education technologies, including networking for instructional purposes. Over 1000 educators, policymakers and researchers are expected to participate. For information contact: Lori Novak, ISTE, Tel Ed'94, 1787 Agate Street, Eugene, OR 97403-1923; tel: +1 503-346-2411; fax: +1 503-346-5890; e-mail: <Lori_Novak@ccmail.uoregon.edu>

March 1995

22-25 March 1995 **SITE'95** 6th International Conferene in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to:
SITE 95/AACE; P.O. Box 2966,
Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail:
<AACE@virginia.edu>

INTERNET INFOSTORE

NCSA Mosaic for the Macintosh 2.0.0 ALPHA3

The Alpha 3 version of NCSA Mosaic for the Macintosh 2.0 was released Tuesday, July 12, 1994.

This is an ALPHA release, therefore there are many new features or bugs that you will need to be aware of to make your use of the new release a pleasant experience. You may encounter problems that will cause your machine to crash. You may not find certain aspects of the program aesthetically pleasing, and the program will trash your current preferences.

Please make a copy of your 1.0.3 preferences file (Mosaic Preferences) before using the alpha version.

FILES:
NCSAMosaicMac.200A3.sea.hqx - 68K version
NCSAMosaicMacPM.200A3.sea.hqx - PowerMac version

HOW TO GET NCSA MOSAIC :
NCSA Mosaic is available via anonymous ftp. Please enter 'anonymous' as the name and your complete email ad-dress as the password.

site: ftp.ncsa.uiuc.edu (141.142.20.50)
location: /Mosaic/Mac (mac version)

For further information contact:

Kim Stephenson (kims@ncsa.uiuc.edu)
MacMosaic Project Lead
Software Development Group, National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign, Illinois

Willow Now Available

The University of Washington has released Willow – the Washington Information Looker-upper Layered Over Windows. Willow is a general purpose information retrieval tool. It provides a single, easy-to-use graphical user interface (X Windows /Motif) to any number of text-based bibliographic databases. It is fully compatible with WWW/Mosaic and the Z39.50 database access protocol. Willow is a cooperative project of University of Washington Computing & Communications and the UW Libraries, with contributions by MIT. Willow is available free of charge, but is copyrighted.

In addition to the source code, precompiled binaries are available for DEC/Ultrix, Sun/Solaris, IBM RS6000/AIX, and DEC/vax-bsd.

There is a WWW/Mosaic home page which fully documents Willow, with color screen-shots of the interface, live demos, a technical description of the architecture, and more. It can be reached at the following URL: http://www.cac.washington.edu/willow/home.html

The Willow distribution can be found via ftp on ftp.cac.washington.edu, in the willow directory. You can find a Postscript version of the documentation as Tech-Report.ps.

For further information about WILLOW contact:

Matthew M. Freedman
U. of Washington Information Systems
mattf@cac.washington.edu
4545 15th Ave. NE; 3rd Floor
Seattle, WA 98105
(206) 543-5593

Merit Software Archives

The Merit/University of Michigan Software Archives contain collections of public domain, freeware, shareware, and licensed software. The largest directories are mac (6000 files), atari (4400 files), msdos (3300 files), and apple2 (1400 files). There are a number of ways to get the files: Gopher, FTP, AFS, and for some directories, email.

1. Archive Introduction.
2. Apollo Archive (Merit Network, USA)/
3. Apple2 Archive (Merit Network, USA)/
4. Atari Archive (Merit Network, USA)/
5. Linguistics Archive (Merit Network, USA)/
6. Macintosh Archive (Merit Network, USA)/
7. MSDOS Archive (Merit Network, USA)/
8. Internet Tools Archive (Merit Network, USA)/
9. CELIA (Language Instruction) Archive (Merit Network, USA)/
10. ------- Mirrors --------------------------
11. Merit Apple2 Archive (mirror in USA, archive.orst.edu)/
12. Merit Apple2 Archive (mirror in USA, wuarchive.wustl.edu)/
13. Merit Atari Archive (mirror in England, src.doc.ic.ac.uk)/
14. Merit Atari Archive (mirror in USA, archive.orst.edu)/
15. Merit Atari Archive (mirror in USA, wuarchive.wustl.edu)/
16. Merit Macintosh Archive (mirror in Australia, archie.au)/
17. Merit Macintosh Archive (mirror in England, src.doc.ic.ac.uk)/
18. Merit Macintosh Archive (mirror in Switzerland, gopher.switch.ch)/
19. Merit Macintosh Archive (mirror in Taiwan, gopher2.ccu.edu.tw))/
20. Merit Macintosh Archive (mirror in USA, archive.orst.edu)/
21. Merit Macintosh Archive (mirror in USA, wuarchive.wustl.edu)/
22. Merit MS-DOS Archive (mirror in USA, archive.orst.edu)/
23. Merit MS-DOS Archive (mirror in USA, wuarchive.wustl.edu)/

Type=1
Name=Merit Software Archives
Path=1/.software-archives
Host=gopher.archive.merit.edu
Port=70U
URL:
gopher://gopher.archive.merit.edu:70/11/.software-archives

The Draft Charter of the ISN-WG
The Internet School Networking Working Group of the IETF (Internet Engineering Task Force).

(The IETF is a volunteer coordinating body for Internet standards and development. To join ISN it is not necessary to attend meetings, which occur every 4 months in various locations throughout the world (*usually* in the US). All you need to do is join the mailing list then be ready to work on the tasks at hand. The tasks are listed in the mile-stones below. If you are interested in working on any of the milestones, please contact either Jennifer Sellers or Art St. George.)

Internet School Networking (ISN) Charter

Chair(s):
Jennifer Sellers <sellers@quest.arc.nasa.gov>
Arthur St. George <astgeorg@nsf.gov>

User Services Area Director(s)
Joyce Reynolds <jkrey@isi.edu>

Mailing lists:
General Discussion:

isn-wg@unmvma.unm.edu

To Subscribe send a message to::

listserv@unmvma.unm.edu

In the main body of the message write::

subscribe isn-wg <first name> <last name>

Archive:
Description of Working Group:

The Internet School Networking Working Group is chartered to address relevant issues related to the connection of primary/secondary schools worldwide to the Internet. The key audiences include network service providers and educational policy makers responsible for network access and use. The key areas of focus for this group are advocacy and articulation.

1. *Advocacy.* The ISN-WG will facilitate dialog between the primary/ secondary education community and the Internet engineering community in order to identify and fulfill the needs of the primary/secondary school community.

2. *Articulation.* Informed by the group's experience and with input from other IETF working groups, the ISN-WG will articulate solutions to the challenges a school may experience in seeking and gaining a connection to the Internet, as well as the benefits of such a connection. Advantages to Internet connectivity may be articulated by means of pointers to such services as user interfaces, directories, organizations, and training programs, as well as to other resources.

Articulation will most often be in the form of periodic documents that address key issues of interest to the school networking community. Representative issues to be addressed by the WG include connectivity models, educational directories, and acceptable use policies.

Goals and Milestones:

Mar 94 Release as an FYI RFC a short document that gives guidance to schools in setting an Acceptable Use Policy.

Mar 94 Release as an FYI RFC a general document that gives guidance in how to connect to the Internet. Included as an appendix will be models for connectivity that may be of particular interest to schools. This is a joint activity with the User Documents Revisions Working Group.

Jul 94 Define the information to be included in an online database of educational people involved in networking, recommend a process for collecting and updating the data, and coordinate with a directory services provider to implement the database. Results will be published in an FYI RFC.

Mar 95 Write a set of two documents, one aimed at connection providers and the other aimed at educational sites, providing guidelines for bringing educational sites online. Included will be a broad definition of connection providers. Interim milestones: 3/94 complete outline; 7/94 first draft; 3/95 review completed.

* * *

(The ISN-WG draft charter can be downloaded from ds.internic.net/ietf/isn/isn-charter.txt.)

To obtain copies of the ISN Internet Drafts on Acceptable Use Policy, FAQ for Educators, and How to Connect follow the following gopher map: Other Gophers/International/Internet Society/Internet Engineering Task Force/FTP Archive of Internet Drafts. The files are:

draft-ietf-isn-aup-01.txt
draft-ietf-isn-faq-02.txt
draft-ietf-isn—k12-guide-01.ps
draft-ietf-isn-k12-guide-01.tx

The NetTeach Bookstore

🗁🗁🗁**Building the Future: K12 Network Technology Planning Guide Draft** *California Department of Education, 721 Capitol Mall: P.O. Box 944272, Sacramento, CA 94244-2720; 1994; 172 pages. US $8.*

The Guide is an excellent resource for anyone involved in developing k-12 networking technology plans at the school, district, or state level.

To order a copy of the Guide please call the CA Department of Education's Publications Office at (916) 445-1260. The Guide will be available for shipment by the end of August. There are discounts for quantity purchases, e.g., 20% for 100 copies.

You can write to the Publications Office at: P.O. Box 944272, Sacramento, CA. 94244-2720

(Note: An earlier version of the Guide can be found on the California Department of Education Gopher, which you can access via goldmine.cde.ca.gov)

* * *

🗁🗁🗁**WINDOWS AND TCP/IP FOR INTERNET ACCESS** by Harry M. Kriz <hmkriz@vt.edu>

ABSTRACT

Internet, the global network of computer networks, is arousing enormous popular interest. In part, this interest is being driven by the availability of free or inexpensive shareware software for Microsoft Windows. It is now technically simple for a personal computer to become a host on the internet. The casual user can find, retrieve, and view information gathered from around the world without having to learn complicated computer commands. In this paper, I describe the principal functions and services available via the internet. Then I outline the technical background and terminology needed by the beginner who wants to make his PC a host on the internet. Finally, I describe several Windows software packages and programs that facilitate using internet services. All the software is freely available over the internet.

The complete version of this document written by Harry Kriz, University Libraries, Virginia Polytechnic Institute & State University, Blacksburg, VA 24061-0434 is available by anonymous ftp from:
nebula.lib.vt.edu in directory
/pub/windows/winsock
under filename wtcpip05.asc

* * *

📖📖📖**$$A Directory of Electronic Mail !%@:: Addressing and Networks** by Donnalyn Frey & Rick Adams. *O'Reilly & Associates, Inc. 103 Morris Street, Suite A ; Sebastopol, CA 95472; 1994; 640 pages.*

This – the fourth edition of a handbook of electronic mail addressing and networks– provides readers with a directory and usage guide to over 210 of the world's research and educational networks, as well as commercial networks. This is an excellent resource ofr network managers or administrators.

* * *

📖📖📖**$$$$ Information Infrastructure Sourcebook** Harvard University, 1994. US $70

The Information Infrastructure project at Harvard's Kennedy School of Government announces the publication of the Information Infrastructure Sourcebook, Version 3.0 (April, 1994), edited by Brian Kahin. The Sourcebook is designed to provide provide planners and policymakers a single volume reference on efforts to define and develop policy for a national information infrastructure. It includes historical policy documents, private sector vision statements and position papers, program and project descriptions (all sectors), landmark reports and pending legislation. The Sourcebook is now produced in two volumes. It is over 1000 pages in length, containing approximately 2000 pages of original material.

To purchase a Sourcebook, send a check for $70 payable to Harvard University, or, fax/e-mail credit card information to:
Document Imaging Services
Office for Information Technology
Harvard University ; 1730 Cambridge Street, room 202; Cambridge, MA 02138 ; tel: 617-496-4077;
fax: 617-495-0715 ; e-mail:
yvonne@harvarda.harvard.edu

The Sourcebook is also available from Computer Literacy Bookshops in San Jose, CA (408-435-1118) and Tyson's Corner, VA (703-734-7771), or via e-mail at info@clbooks.com.

* * *

📖📖📖**$$ Benchmarks for Science Literacy Project 2061** American Association for the Advancement of Science; Oxford University Press; New York; 1993; 418 pages. US $21.95

This report represents the vision of collaborative effort of some 150 teachers and administrators in six school districts who came together over four summers and three academic years to develop a common set of benchmarks for science literacy. It offers a tool to be used by educators in designing their own curriculum by offering a common core of learning rather than a curriculum or curriculum framework, For project-based educators, this is a good resource.

Richard Riley on the Information Superhighway, continued from p 16

Technology offers other ways to strengthen the bonds between parents and schools and to help parents stay involved with their children's work. At Webster Elementary School in St. Augustine, Florida, a simple voice-mail system has done wonders to improve parent-teacher communication by allowing them to leave messages for each other and giving parents answers to frequently asked questions – like homework assignments. Just imagine what it will mean when parents and teachers can leave each other "video mail!"

Some schools are already lucky enough and wealthy enough to have begun using these technologies. But for many, many others, they are simply unknown. We cannot let new technologies for learning divide us as a nation into the have's and the have-not's. What purpose will it serve for us to create an Information Superhighway that benefits only an educated elite and creates new fault lines in our society?

Goals 2000 is based on the premise that all children can learn to high standards and must be provided with the facilities and the chance to learn. Unfortunately, too many students have no access – and no immediate hope of access – to the Information Superhighway. Perhaps the chairman of the FCC, Reed Hundt, whom you will have the opportunity to hear tomorrow, said it best when he stated, "There are thousands of buildings in this country with millions of people in them who have no telephones, no cable television and no reasonable prospect of broadband services. They are called schools."

This fall, our National Center for Education Statistics will be surveying schools and classroom connections to the Internet and other electronic resources to determine how many students have the capacity to go "on line." After that will come the hard work of giving all classrooms this essential link. Because we do know that only 4 percent of all classrooms are connected today.

Bringing our schools on line is not something that the public sector can do alone. Businesses can and must play a significant role in this regard. I recently saw a news report in which a California telephone company said it would underwrite the efforts of a private foundation to supply schools statewide with one million donated computers by the year 2000. That is the kind of partnership that we must foster.

We have before us the unfolding of an extraordinary period ... a real "democracy of knowledge" resulting from the convergence of the entertainment, telecommunications, television, and cable industries. Only by carefully planning how this potential for teaching and learning can be implemented can we ensure that we take full advantage of it ... and that those in our society – both young and old – who are disconnected from society and from a culture of learning – can be reconnected and re-engaged to that exciting world.

I challenge you to make sure that every child will benefit from this wealth of new learning resources ... and ensure that no student is left behind in our march toward the next century. I firmly believe that our Nation, with all the resources available to it, and with your commitment, our Nation can succeed beyond our100% wildest dreams.

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

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NetTEACH NEWS

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NetParents: Building New Bridges of Understanding and Forging New Partnerships

by Kathy Rutkowski

A new population of parents with school-age children is fast emerging on the global educational landscape — the Netparents. Although their numbers are small they are expanding rapidly and their influence is significant and growing. Potentially, these NetParents in partnership with NetTeachers can become a powerful political force in promoting changes in the education systems worldwide.

Who Are NetParents and Where Are They Doing?

Netparents represent many professions and occupations. Some are doctors, others lawyers, others geologists, others journalists, others detectives, others social workers, many teachers, and many homemakers, and all to varying degrees interested in lifelong learning.

Most Netparents are first nethooked at work but some are discovering the networks via their children and the schools. Some are merely interested in providing this resource exclusively to their own children for enrichment purposes and for homeschooling, but many are volunteering their time and expertise to promote the universal use of networks in schools and communities around the globe.

These networking parents are visible on most of the major K-12 listservs and newsgroups. They are ***asking*** all sorts of questions about whole language theory versus practice, attention-deficit disorders, home-schooling, the appropriate and optimal use of technology in the classroom, and new ways of learning and teaching. They are also ***answering*** questions about new technologies, new management techniques, networking training and user support, appropriate uses of advanced new technologies, and offering their firsthand insight on the impact of many teaching practices and learning theories.

Some are acting as adult mentors responding to student and teacher inquiries from around the globe. Others are working with classroom teachers to develop and implement network-based projects. Some are working to develop community networks and ensure student and teacher access.

Although most teachers in the classroom are unaware of their existence, they are well-known to most networking teachers and in many areas are joining forces with networking educators to actively encourage the use of networks in education and educational restructuring.

The Parental Paradox

These are paradoxical times for all parents including Netparents. In the last decade, parents have gained a more powerful voice and influence in the classroom and school. Indeed, educators have invited parents into

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13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel. +1 703-471-0593 ISSN 1070-2954

New Partners *continued from p.1*

the schools and urged more active participation in school activities involving their children. Nonetheless, the vast majority of parents with children in the American public education system feel as powerless as their offsprings when it comes to urging significant changes in the system of learning, and many educators view proactive parents as interlopers and in some cases as "the enemy."

What do educators really expect of parents and what role should parents play in the education of their offspring? How can parents and teachers work together to instill positive values, inspire lofty ambitions, and encourage new generations of learners to pursue knowledge as a lifetime mission. These are fundamental questions that must be addressed in any real discussions of educational reform, and Netparents and NetTeachers are providing some clear answers and directions.

What Do Educators Expect of Parents? — Positive Support

Ask most educators what's wrong with today's students and somewhere in the conversation they will probably bring up parental disinterest and self-centricity. Most educators feel parents must and should play a proactive role in the education of their offspring and encourage parents to assume more responsibility in the learning process. They expect parents to work with their children on their homework, monitor their activities, and act as suitable role models.

However, educators are also wary of parents who are too proactive and too involved in the formal education process. Sometimes parental proactivity has had negative impact on classrooms and schools, and some parents have assumed too strong a voice that has disrupted the learning process and held teachers and the education system accountable for things beyond their control.

Parental Empowerment

Most parents want to play a positive role in the education of their children. Often they do not have the time to play as major a role as they might desire. Even if they do have the time, they are often denied the opportunity to actively participate in the formal education process of their child once that child reaches "school-age." At the magical age of six, society assumes control over the education process and basically relegates parents to the back seat if not to the outside of the car. Society clearly denotes a difference between the "formal" and "informal" education process, and even the recent growth of the "homeschooling" movement has done little to truly change these attitudes and perceptions.

Most parents accept the rationale for some degree of schooling outside the home and welcome the expertise of trained professional educators and the use of resources beyond their ability to provide. However, all parents, no matter what their occupation or level of formal education can, and should be encouraged to play a more significant role in the education of their children beyond the age of 6.

Society needs to find ways to encourage parents to become more active in this process and to work with the classroom teachers and other adult mentors in the education of their children. Parents need to feel as though they are competent and have knowledge and skills that can be transmitted. They need to be included in major decisions that effect their children and the education of their children, and their involvement must be more than tokenism.

NetParents and Proactivity

Netparents are playing a more active role in the education process of their children. They are asking questions that increase their understanding of pedogogy, child psychology, and child development. They are talking to educators around the globe and gaining an understanding of the classroom teacher perspective. They are working on homework projects with their children that often become family learning projects. They understand firsthand the excitement and potential of the new technology as a tool of learning and are eager to share that excitement and knowledge with their children and others.

(See **Netparents** *on page 24)*

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The Internet: A Lifetime for Renewal and Empowerment

by Ray Pelletier

The Internet offers a lifeline of renewal of our schools and empowerment of our teachers and students.

Built to support the educational needs of a long gone industrial era, our schools have become what Louis Gerstner, Chairman and CEO of IBM, calls, "20th century islands in the 21st century information age." Access to the Internet with more than 20 million users from 130 countries, and vast and rapidly expanding information repositories of every nature and type provides an opportunity to bring the cutting edge of reality into our classrooms. An opportunity for self renewal, an opportunity for empowerment. An opportunity we canot afford to delay for the sake of the success of our future workforce and the national economy.

We have entered a knowledge-based economy where one's continuous value and marketability are determined by information skills. Business and work dynamics will exacerbate the differences between the skilled and the unskilled. It is estimated that only 15 % of the jobs will be unskilled by the year 2000. To maintain global competiveness businesses are downsized, improving processes, reducing overhead, decentralizing, increasing investments in technology, and increasing worker productivity. People who once believed they had a twenty-five year career with one company now find themselves unemployed, under-employed, part-timers, consultants, with another company in the same field or changing careers. A study reported in the Wall Street Journal revealed people change jobs ten times over their working life. Recently the Bureau of Labor Standards predicted that people will change careers three times in a lifetime. Whether they are empowered with life-long learning information skills will determine their success and that of our businesses and country.

What role then can the Internet play in education renewal and the learning of critical information skills?

Teachers will find in the Internet the means for communication and collaboration with colleagues and professionals. Current research materials, lesson plans, videos, sounds, images, art, communities of interest in reading, rain forests, virtual reality and so much more are a wire, a modem and a computer away. Chronic education problems of inadequate resources, isolation, out of date material, staying current in the field and a lack of context for teaching can be significantly addressed with Internet access and utilization.

The Internet and technology are merely a means for acquiring new knowledge and skills. They are not the goal. Life-long learners in the knowledge-based economy will need the ability to create, access, manipulate, organize, analyze, evaluate, present, share and communicate information using the tools of the marketplace. From these skills spring new knowledge. From these skills comes the ability to move from job to job, to change careers, to be self-employed, to be marketable, and to add value.

With the teacher as their guide, students explore the riches of the Internet, accessing and gathering data, collaborating with other students and professionals down the street and around the planet, and there, on the Internet, publishing their work with text, graphics, images, sound and video for others to see, learn from and build upon.

It is on this highway rhat a new global economy with new businesses, markets, business organizations, processes, distribution systems and opportunities will be built. This is the infrastructure for the knowledge-based economy. Our workforce must be empowered with the abilities essential to their success. Harland Cleveland, Dean of the Hubert Humphrey School of Public Affairs, University of Minnesota, said in 1985, "By the end of the century, approximately two thirds of all work will be information work... Tools such as (computers) empower those who learn to use them to make complex judgments in the more mindful knowledge of alternative futures. People who do not educate themselves to participate in the new knowledge environment will be the peasants of the information society." This is an investment we must make in our students, teachers and schools.

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Ray Pelletier is the Executive Director of the Northern Virginia Technology Council, a consortium of high technology companies focused on the economic development of the industry, region and state. Mr. Pelletier has served on numerous education committies, including instructional technology, magnet schools, technology financing and bonds. He consults with and speaks frequently before business, educstion, legislative and civic groups on matters pertaining to educational reform and business requirements, educational technology, the Internet, and technology. For more information about the Northern Virginia Technology Council contact Mr. Pelletier at:

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Visions of Information Age Schools
by Colleen Foley Wheeler

Colleen Foley Wheeler is a well known K12 networking activist and a Site Coordinator for the Massachusetts Corporation for Educational Telecommunications. Formerly, she was a music teacher who pioneered the use of networks in her classroom. Colleen has created the following vignettes to illustrate what is possible in k12 networking. Although the schools and activities are fictional, the specified destinations are real and most of this is now possible. These scenarios are designed to provide a vision for the present and the future.

Elementary School Scenario- E-mail as a Curriculum Tool

Students at Charlotte Web Elementary School* are collaborating with colleagues around the world to produce and publish a multimedia literary and arts magazine called "The Global Peace Papers." This electronic journal of cultural exchange is published monthly through e-mail. In addition, it is posted to the Mosaic server at Longfellow University for classrooms with direct Internet connections.

Recent issues have included daily news stories from global locations in native languages (including embassies and peace groups), local histories, and interviews with special guests who have different careers. Guests have included war veterans and penguin researchers at an Antarctic research station.

Every issue contains student-created art, stories, poetry, and music as well as photo images of its contributors and guests. Students with direct connections to the Internet can "read" the issues via Mosaic, while students without direct access receive the materials via e-mail and open them using the free viewer software all participants receive via e-mail. Most schools print the issues and distribute them to the local community.

"The Global Peace Papers" incorporates current journal reports from explorers worldwide. The last issue featured a natural historian's journey by sea kayak through the coastal waters of northern Maine and Nova Scotia. A reference in the article explained how to sign up for a teleconference series via satellite from MCET called "Critters of the Coast of Maine." Students requested the materials in advance of the broadcast and e-mailed questions to the explorer. The class loved talking with the explorer over the telephone during this distance learning program and chatting with him on Internet Relay Chat (IRC) afterward. A regular column of "The Global Peace Papers" highlights unusual network events from Academy One (telnet> freenet.cwru.edu). These events have included "virtual track meets" TeleOlympics), space simulations, and hands-on site-based projects built around the Olympics, the Iditarod race (dogsled race across Alaska), and the Whitbread race (sailing race around the world).

The school's Language Arts teacher, Ms. Louisa May Alcott, was delighted to have found several enthusiastic collaborating classrooms by referencing Usenet's "k12.chat.elementary," an area for informal discussion on K-5 curriculum.

One of Ms. Alcott's e-mail correspondents suggested that she consider founding a Careers Telementor program for her students; next year Charlotte Web Elementary School's students and teachers will correspond via e-mail with professionals in a variety of fields. Ms. Alcott has made initial contacts via the TRIE (Technology Resources in Education) service (telnet> eis.calstate.edu; login as "guest").

Middle School Scenario- Gopher and Telnet as Curriculum Tools

B. C. Pythagoras, a member of the mathematics faculty at Mobius Strip Middle School*, has arranged a number of interdisciplinary network projects for middle school math students designed in collaboration with math professionals and students in colleges of education.

Students at the Mobius Middle School explore mathematics and dimensionality by visiting "Flatland," an educational MUSE (Multi-User Simulated Environment). This graphic Internet destination provides a live, interactive math experience for up to 20 students at a time via telnet. Students become characters in a two-dimensional world (based on the book, Flatland: A Romance of Many Dimensions by Edwin A. Abbott) and can visit "countries" of one, three, and four dimensions. The telnet site was designed by the math faculty at Mobius and two student-teachers at the local college. While exploring, the students retrieve many resource documents from gophers to enrich their studies. They have teamed up with the History of Art and Music class at Miro

(continued on page 22)

NEWS FROM THE STATES: InforMNs— Minnesota Offers Internet Access tp K-12 Educators

Nearly 1,000 Minnesota teachers are cruising the information superhighway this summer via InforMNs -Internet for Minnesota Schools, a service offered to K-12 educators throughout the state. Using the direct full-function access to the Internet that InforMNs provides, teachers browse through on-line databases and library catalogs around the world; they have access to U.S. government information from a number of agencies including NASA, the Department of Education, and the National Institutes of Health; and they share lesson plans, ideas for more effective teaching, and thematic classroom activities with other teachers and students.

For instance, the Wolf Studies Project of the International Wolf Center in Ely, Minnesota allows students and teachers around the world to hear, see, and track radio-collared wolves in the Superior National Forest via the Internet. They can read reports, see pictures and video images, and hear sound files about the wolves' movement and activity that are posted on the Wolf Studies Project Gopher server. In another project, students and teachers in Minnesota have been exchanging electronic mail with their counterparts in Kamchatka, Russia for the past year. This August the Kamchatka Ministry of Education is sponsoring the Second Annual Educational Travel Seminar to the Russian Far East with the help of the Minnesota Global Education Resource Center. These kinds of resources and activities, and the communication that happens between people, are what make the Internet what is -- a worldwide network of computers, resources, and the people that use them.

InforMNs is available to teachers, administrators, and staff from any school district, public or private, in Minnesota. Subscriptions run for a 12-month period and can start at any time. The fee is $20 per month, paid annually, and provides up to 30 hours of toll free access per month. Software, user guides, and a toll free helpline for on-going support are included. In addition, the InforMNs service provides one day of training for one person in each subscribing school building to prepare that person to give onsite assistance to his or her colleagues. To subscribe or for more information, call InforMNs at (612) 638-8786 or send email to <howe@informns.k12.mn.us>

InforMNs is funded in part by an appropriation from the state legislature to the Minnesota Department of Education (MDE) to provide Internet access to all Minnesota schools. The appropriation subsidizes the cost of providing the service so that toll free dial-up access is ensured from any school in the state, regardless of its location. Of the 1,000 subscribers, approximately half connect to the network via local calls in St. Cloud, Rochester, and the Twin Cities, and half use the InforMNs 800 toll free access number.

In addition to toll free access, InforMNs subscribers receive all the software they need to connect their Macintosh or IBM-compatible personal computers directly to the Internet. After making a dial-up connection with an ordinary phone line and a modem, the InforMNs user's computer becomes one of the estimated two million computers now on the Internet worldwide. This method of connection differs from the more familiar link to a bulletin board system or on-line service like Compuserve, where the user's access to the Internet is relayed through a central computer operated by the bulletin board owner or online service provider. The InforMNs direct connection allows teachers to use all the features and resources available on the Internet including news groups, discussion lists, electronic mail, Gopher-organized resources, the World Wide Web, and file transfer. Information flows from a distant Internet repository directly to the user's own Macintosh or PC.

The InforMNs service is provided by a partnership of the Minnesota Department of Education, the Minnesota Regional Network (MRNet), and Technology Information and Educational Services (TIES). In addition, the University of Minnesota and the Minnesota State University System (MSUS) share use of their telecommunications infrastructure with the project, and InforMNs was launched with the support of the Minnesota Educational Media Organization (MEMO) and the Project for Automated Libraries (PALS) at Mankato State University.

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INFOBYTES

NCSA SuperQuest for Teachers Home Page is Now Open For Viewing.

SuperQuest for teachers is an intensive 3-week workshop in computational science and modeling for high school teachers of mathematics and the sciences. The workshop and the year-long follow-up and support are funded by the National Science Foundation and NCSA.

Set your pointers to URL:

http://www.ncsa.uiuc.edu/Edu/SuperQuest/sqt/index.html

This year's workshop is a pilot effort to design a national model for developing master teachers who can use computational models in their classes to enhance science and mathematics learning, while bringing more discovery and exploration into the curriculum.

There is a link to a related workshop being held in North Carolina.

Definitely take a look at the SuperQuest Daily Observer for a day-by-day account of the workshop that allows you to follow the modeling activites of the teachers. Point to URL:

http://www.ncsa.uiuc.edu/Edu/SuperQuest/sqt/observer.html

If you have ideas for models that the teachers may be able to use, please send suggestions, and comments on the SuperQuest pages, to <rpanoff@ncsa.uiuc.edu>

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Antartica Web Server Now Up and Running

The International Centre for Antarctic Information and Research is pleased to announce the Gateway to Antarctica. This Web server has been set up to provide the international community with information about Antarctica.

The server has been in existence for several months now, and the information content is now significant enough to warrant announcing it publically.

The URL for the Gateway to Antarctica is -

http://icair.iac.org.nz/

For further information contact:
Dean Ashby International Centre for Antarctic Information and Research
P.O. Box 14-199
Christchurch, New Zealand
e-mail: <ashby@icair.iac.org.nz>
tel: + 64-3-358-4450
fax: + 64-3-358-4480

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The American Institute of Physics Announces A WWW Server

The American Institute of Physics (AIP) revealed the debut of its World Wide Web server on the global Internet. Although still under development, the AIP's HomePage features access to the popular "AIPJOBS ONLINE" service -- an employment directory for physical scientists -- as well as an archive of images from the recent collision between Comet Shoemaker-Levy and Jupiter.

Since 1931 AIP has been promoting the advancement and diffusion of the knowledge of physics and its application to human welfare -- by serving the sciences of physics and astronomy, by serving its Member Societies, by serving individual scientists, and by serving students and the general public.

AIP's Home Page is found at URL:

http://www.aip.org

For further information about AIP and its HomePage, or any other aspect of AIP's electronic information services, contact: **<webmaster@aip.org>**

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Endangered Species Program Information on the US Fish & Wildlife Library Server

The Division of Endangered Species of the US Fish & Wildlife Service is offering several new items on its Library Server including,

(See **Endangered** *on next page)*

INFOBYTES

ENDANGERED, continued from p. 6

To receive a document explaining the use of the Library Server send a message to:

<r9irmlib@mail.fws.gov>

with SEND HELP in the SUBJECT of the message.

Do not place any text in the body of the message. A help document and index will be sent to you.

The commands for retrieving the Endangered Species information are listed below. These commands are documented in the file returned using the SEND HELP command. You may send a message to the above address with one of the commands listed below to retrieve a specific document. Each command should be placed in the SUBJECT of your message. Each message may contain only one command.

SEND T&E LIST WP -You will receive a copy of the endangered and threatened wildlife and plants, current as of 6/30/94. POSTED ON LIBRARY SERVER 7/18/94 (This contains a WordPerfect 5.1 file -729 Kb)

SEND T&E LIST -You will receive a copy of the endangered and threatened wildlife and plants, current as of 6/30/94. POSTED ON LIBRARY SERVER 7/18/94 (This contains a ASCII delimited files - 145 Kb)

SEND SPECIES MAPS -You will receive four separate maps showing number of category 1, candidate, proposed, and listed species by state/territory. POSTED ON LIBRARY SERVER 7/18/94 (This contains 4 WordPerfect 5.1 files -589 Kb)

SEND ESA -You will receive a copy of the Endangered Species Act of 1973, as amended through the 100th Congress (1988). POSTED ON LIBRARY SERVER 7/18/94 (This contains an ASCII file - 140 KB)

SEND PNOR -You will receive one ASCII delimited file of the Notice of Review for Plant Taxa for Listing as Endangered or Threatened Species, as published on 6/30/93. POSTED ON LIBRARY SERVER 7/19/94 (This contains an ASCII file - 211 Kb)

NervousSystem 1.0. Now Available

NervousSystem 1.0.gwu -- Neuron Modeling and Simulation Environment for Apple Macintosh is now available for use by science teachers and students.

NervousSystem is an exciting new simulation tool for exploring the behavior of networks of neurons, based on a biological model.

NervousSystem is FREE, easy to learn and use, and "easily"expandable and customizable.

This software is available by anonymous ftp from Info-Mac,"sumex-aim.stanford.edu", in the directory, "sci". The file is named "nervous-system-10.hqx". The authors suggest copying NervousSystem from a mirror site, sumex is often too busy (for example, "grind.isca.uiowa.edu" "mac/infomac/sci/nervous-system-10.hqx").

"NervousSystem.sea" is a self-extracting compressed file. After copying it to your local directory, double click on it."NervousSystem.1.0.gwu.sea" will self-extract into a folder named "NervousSystem". The application, source, user's guide, programmer'sguide, and "Read Me" are located within this folder. (Note—*The uncompressed "NervousSystem" folder will require about 5MB of hard disk space.*)

NervousSystem products are released under the terms of the GNU General Public License Version 2 as published by the Free Software Foundation, Inc., 675 Massachusetts Ave., Cambridge, MA 02139, 617-876-3296. (A copy of this license is included in the Programmer's Guide.)

It can be redistribute freely as you see fit (according to the provisions of the GNU General Public License). It is Copyrighted (c) 1994, by Daniel C. McFarlane and Joe Geigel.

For Further information contact:

Daniel C. McFarlane
The Naval Research Laboratory, Code 5513
Human-Computer Interaction Lab
4555 Overlook Ave., N.W.
Washington, D.C. 20375-5337
e-mail: mcfarlan@seas.gwu.edu

Pittsburgh Supercomputing Center
BioMedical Group

Edulists

AAESA-L - American Association of Educational Service Agencies

AAESA-L on MAILSERV@ADMIN.ACES.K12.CT.US -- American Association of Educational Service Agencies

AAESA-L is an open, unmoderated discussion list on the topic of Educational Service Agencies (ESAs) throughout North America. Discussion topics will include such items as ESA problems and their resolution, new ESA ventures, ESA resources, and ESA futures. AAESA-L is for all ESA staff, their member districts, anyone interested in sharing their ideas and comments to ESAs, and open to the world.

To subscribe, send the following command in the body of E-Mail to MAILSERV@ADMIN.ACES.K12.CT.US on the Internet:

SUBSCRIBE AAESA-L YourFirstName YourLastName

For example:

SUBSCRIBE AAESA-L Joe Schmoe

Owner: Alfred Hopkins, Jr. hopkins@admin.aces.k12.ct.us

NOVAE>> GROUP>>

Created by educators, NOVAE>> GROUP>> is a listserv that provides timely news articles to classroom teachers who really don't have time to drive the Information Highway. Weekly postings from teachers and other educators just like yourself keep you abreast of the electronic world pulsing around us all.

NOVAE>> GROUP>> selects articles to fit the following subject groups as they become available:

Internet Information (includes lists, FAQs, and information on gophers, WWW, etc.)

Funding/Teacher Education Information (includes grants, workshops, televised conferences, etc.)

Elementary (K-5) and Middle (6-8) School Projects (all subjects as well as keypal information)

Secondary (9-12) School Projects (math, science, social studies, etc.)

If you are interested in requesting our service for yourself or for your school, send us the following information and you will be added to the list.

YOUR NAME
YOUR COMPLETE EMAIL ADDRESS

Send your request to Bob Melchert (melchert@raven.csrv.uidaho.edu) or Art Galus (c6460101@idptv.idbsu.edu).

Robin Powlus	robin_p@server.greatlakes.k12.mi.us
Leni Donlan	afcleni@aol.com
Kathryn Amanda Cossi	kcossi@tenet.edu
Bob Melchert	melchert@raven.csrv.uidaho.edu
Bill Jacobson	wmjake@pen.k12.va.us
Andy Wright	awright@ccantares.wcupa.edu
Arthur Galus	c6460101@idptv.idbsu.edu

Attention Deficit Disorder Listserv < add-parents@n7kbt.rain.com>

The ADD Listserv provides support, current research findings and information about attention deficit disorder (ADD). To subscribe, send a message to: <LISTSERV@n7kbt.rain.com>

In the main body of the message write:

SUBSCRIBE add-parents <firstname> <lastname>

GANGTM

Gangtm is an unmoderated list for discussion of gangs and gang-related problems. The list is open to all -- gang members, ex-gang members, teachers, etc. You may discuss your situation with the group, or make a one-one connection through the list. We are also open to discussion of policies and other general issues.

To subscribe, send a one-word message:

subscribe

to <gangtm-request@dhvx20.csudh.edu>

This list is part of the telementoring project at California State University at Dominguez Hills.

For further information, contact: Larry Press at <lpress@dhvx20.csudh.edu>

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel +1 703-471-0593 ISSN 1070-2954

Edulists

VA-HIST@leo.vsla.edu —An Electronic Forum for Discussion about Virginia History

VA-HIST is a list for discussion of research and writing about Virginia history. VA-HIST is to be an electronic forum where researchers can learn more about the work of other scholars, inquire about the location of resources, debate issues, raise questions, and learn about current events in the field (conferences, research grants, position announcements, etc.). It is intended to be an electronic forum for communication among the international community of scholars investigating Virginia's past. VA-HIST encourages posting on matters related to all periods of Virginia history, welcomes methodological and theoretical discussions, and applauds comparative perspectives.

To SUBSCRIBE, address your message to:

<LISTSERVER@LEO.VSLA.EDU>
(NOTE: listserver NOT listserv)

In the main body of the message write:

Subscribe VA-HIST Your Name

For further information contact the list moderators:

John T. Kneebone and Brent Tarter
Virginia State Library and Archives
11th Street at Capitol Square
Richmond, Virginia 23219
Tel 804/786-4178 or 804/786-7311

NATLIT-L on LISTPROC@ENVIROLINK.ORG

The NATLIT-L (Natural Literacy) list is founded for the purpose of discussing books and other resource materials (tapes, software, and artwork) pertaining to nature, environmental science and outdoor activities. This can include good books on environmental education, environmental law, resource management, meteorology, plant and animal identification, and mountaineering, bicycling or backpacking guidebooks. Natural Literacy is based on the premise that knowledge about the earth will help to save and preserve her. And learning is fun too!

Appropriate contributions will include:

- Recommendations for good reading
- Recommendations for people requesting information
- Book reviews-- professionally or semi-professionally written
- Announcements of new book releases
- Discussion of ideas for potential authors of new books

To subscribe to the mailing list send an email message to:

LISTPROC@ENVIROLINK.ORG

in the main body of the message write:

SUBSCRIBE NATLIT-L <First Name> <Last Name>

This list is moderated by Geoffrey Gothelf, founder of Natural Literacy, a book selling company with an electronic catalog on the EnviroLink FreeNet (Telnet or gopher envirolink.org). For additional information about Natural Literacy send an email to natlit-info@envirolink.org.

WWW-VM is now open for Discussion

This list is to discuss issues relating to World Wide Web (WWW) on VM/CMS systems. WWW Browsers (clients), Servers, Utilities, and sources are all fair game. To subscribe, send e-mail to:

< LISTSERV@SJUVM> or
<LISTSERV@sjuvm.stjohns.edu>

In the main body of the message write,

SUBSCRIBE WWW-VM firstname lastname

NEW: AP-L - List for Advanced Placement Teachers

AP-L is an open, unmoderated discussion list for teachers of advanced placement courses. AP-L is used for posting questions, lesson ideas and providing help for other AP teachers. Students taking AP Courses are also welcome. There will be no archives for AP-L

To subscribe, send a message to:

<LISTSERV@GITVM1> or
<LISTSERV@GITVM1.GATECH.EDU>

In the main body of the message write:

Sub AP-L yourfirstname yourlastname

Owner: Jason Slack jslack2@onondaga.bitnet
or jslack2@ocmvm.onondaga.boces.k12.ny.us

TWO NEW KIDLINK PROJECTS: DESERT AND DESERTIFICATION AND KIDZINE

Desert and Desertification is a year long project scheduled to run from September 1994-May 1995 in four stages.

Stage I: (September 94 - October 94) Main subjects: Introduction of students, Classes and area of living, collection of data, learning to use the INTERNET for sources and e-mail.

Stage II: (November 94 - December 94) Main subjects: The perception of the desert, The desert in literature, history and cultures, Names of the desert and of phenomena in the desert.

Stage III: (January 95 - February 95) Main subjects: What is a desert? What is in a desert? The effect of man on the desert (development and/or desertification).

Stage IV: (March 95 - April 95) Main subject: The Desert in the Future and the Future of the Desert.

Desert Experience - During April 1995 - in Sde-Boker.

A Final Happening (May 95)

(*Note for teachers: The program will include a Curriculum framework with suggestions for subjects and educational activities, as well as tips for the teachers. This is not a usual program nor is it a usual curriculum.This is a frame work that you, the teacher, will have to fill with relevant subjects or with relevant working parcels.By relevant" we mean here relevance to the student (who made a choice of a subject), to the teacher, to the curriculum or to your environment.*)

This Project will be lead by Hannh Sivan, David Lloyd (teachers) and the 10th grade students of the High School for Environmental Studies in Midreshet Ben Gurion, The Negev, Israel. This group will send, at the beginning of each stage, instructions and tips to the teachers. At the end of each stage, this group will produce a final report of the input from the various groups.

For further information contact Hannah Sivan or David Lloyd at:

<boker@zeus.datasrv.co.il>

KIDZINE is a project that will involve the publication of a monthly online magazine for, and by Kidlink students. The students (ages 1—15) will research, write, edit, and layout the magazine which will be electronically disseminated.

The purpose of the project is to encourage nurture writing skills, inform and educate the students by engaging them in the research into an assortment of subjects, to encourage global discussion and an awareness of global events and issues, and to empower student writers by providing them with an audience for their creative work.

The magazine will have a current affairs section, interviews, reviews of films, word puzzles, and creative writings.

For more information send a message to: JARON GHANI at:
< jaz@ghani.demon.co.uk>

To join either project, you should join KIDLINK and KIDPROJ (within KIDLINK) . It costs nothing to join. To find out more about membership and the KIDLINK program, send an email message to:

LISTSERV@VM1.NODAK.EDU

leave the SUBJECT area empty, and in the main body of the text, write: **GET KIDLINK GENERAL**

Global Student Newswire (GSN)

The Global Student Newswire is an attempt to tap the creative resources of student journalists, editors,and communicators around the world and use the Internet as the connection and distribution medium.

The GSN aims to connect students at the high school through graduate levels with the growing number of student publications on the Internet.

GSN will operate like a traditional newswire but will be pioneering the use of the Internet and the empowerment of student journalists and correspondents. Bureaus will be used to designate the different groups of students working together, and will allow autonomy at the local level.

GSN also will actively seek publications that might be interested in using this material.

For further information on the GSN, send e-mail to:

<electnws@jou.ufl.edu>

in the subject line write:

GSN: Info request

In the main body of the message write your name and e-mail address.

You can also ftp to
132.236.225.25/pub/gsn/gsnfaq.txt
or point to URL:
http://www.jou.ufl.edu/features/gsn.html

AN INVITATION FROM ROGER RABBIT TO PARTICIPATE IN

WHERE ON THE GLOBE IS ROGER?—A GLOBAL SCHOOLNET FOUNDATION PROJECT

Join Roger Williams, global adventurer and raconteur, as he leaves South America and travels to South East Asia. Roger is driving around the globe in his 1982 Dodge truck and he wants to take you along on his trip - via your connection to the Internet. You can plot his travels on your global map; read his entertaining dispatches from the exotic places he visits; ask him questions; and make friends with the students in the places he visits.

Global SchoolNet Foundation is pleased to provide you with "free travel passes" to take a most amazing electronic journey with Roger!

Here is an invitation from Roger to all the school children around the globe:

◆ ◆ ◆

Dear Boys and Girls,

I would like to introduce you to what I think will be a great adventure for us all and a chance to learn about countries around the world, first hand. My name is Roger Williams. I'm a retired Airline Pilot and U.S. Marine Corps Aviator. I was born on a ranch in Texas on October 3, 1936 and graduated from High School in Austin, Texas and then spent one year at the University of Texas.

My dream from the fourth grade on was to become a Marine Pilot. That dream was realized after many years of hard work in April 1962. While in the Marine Corps, I flew off aircraft carriers during the Viet Nam War.

I have always enjoyed traveling and I think this will be the ultimate trip as I drive my truck across every continent around the globe.

On the first leg of my journey, I departed from Southern California, on January 14,1994 and drove through Mexico and all of Central America. I then shipped my truck from Panama to Northern Chile. From there i drove the full length of Chile and crossed into Argentina and proceeded to Tierra del Fuego. Upon completing my goal of reaching Tierra del Fuego by mid April 1994, I then proceeded north through Argentina to Brazil and shipped my truck from Santos, Brazil to Brisbane, Australia. Throughout my travels, I visited local schools and helped the children communicate with kids back in the United States.

I am about to begin the next part of my journey. I am flying to Brisbane on August 1, 1994 to start my trip through Australia, Indonesia, Malaysia, Thailand, and possibly Burma - and, then on to China and Russia. I hope to be able to cross Russia then travel into Europe through Spain and Portugal. I will cross into Africa and finally return home sometime in late 1996 or early 1997.

As you can see it will be a grand adventure and I hope you can join me through activities being coordinated by the Global SchoolNet Foundation.

You see, challenge is an intergal part of the human experience. Without it, life becomes very dull. We all have to challenge ourselves if we expect to grow and help make a better world for people to live in. Through participating in this adventure I would hope you will be able to form life long friendships with other students around the world.

With better global human understanding, the possibility of violent conflicts diminish. I am hoping all of us can contribute to a lasting World Peace.

I will be sending you summaries of my travels and when possible, digitized photos, using a special device called ComputerEyes that hooks up to my AST laptop computer. I look forward to answering your questions and will do so the best that I can. If my answers sometime seem short and to the point that is just the way I am - so just bear with me!

Sincerely,

Roger

Information for Teachers:

Project Name: Where on the Globe is Roger? (c) 1994 Global SchoolNet Foundation

Date: August 14, 1994 through June 30, 1995

Purpose:

- ***Improve knowledge and skills in geography, culture, and history of the regions visited by Roger.***
- ***Establish positive and constructive relationships between children around the world.***

Summary: You can vicariously join Roger Williams, global adventurer and raconteur, as he drives his 1982 Dodge truck through Australia, Southeast Asia, China, Russia, and points west. During his travels, Roger will visit schools and classrooms, meeting teachers and their children. He will send back periodic travel updates for you to read. You can send to him the questions you have about the peoples he visits. And he will try to match you class with one of those he visit.

Grade Levels: Elementary and junior high

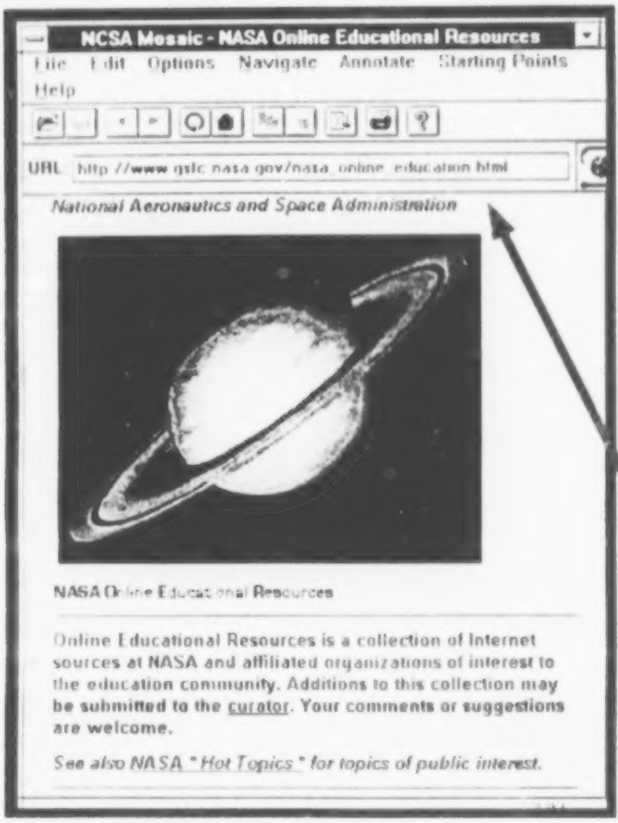
For more details including registration requirements send a message to:

Project Coordinator:
Erica Rogers
Global SchoolNet Foundation Coordinator: PO Box 243, Bonita, CA 91908
Tel: +1 619-475-4852
FAX : +1 619-472-0735
Email:
where_is_roger@bonita.cerf.fred.org

A Tour of Nasa on the Nets

NASA scientists have created many exciting online destinations for teachers and students. There is a wealth of information that can be freely accessed including scieintific data, photos, and projects and resources geared specifically to the K12 community. In the pages that follow, we will merely highlight some popular K12 haunts but we urge you all to telnet, gopher, ftp, or click to places in the far reaches of the universe and man's imagination.

NASA's Online Education Resources Page
Point to URL:
http://www.gsfc.nasa.gov/nasa online education.html


NCSA Mosaic - NASA Online Educational Resources
File Edit Options Navigate Annotate Starting Points Help
URL

http //www gsfc nasa gov/nasa online education html

National Aeronautics and Space Administration

NASA Online Educational Resources

Online Educational Resources is a collection of Internet sources at NASA and affiliated organizations of interest to the education community. Additions to this collection may be submitted to the curator. Your comments or suggestions are welcome.

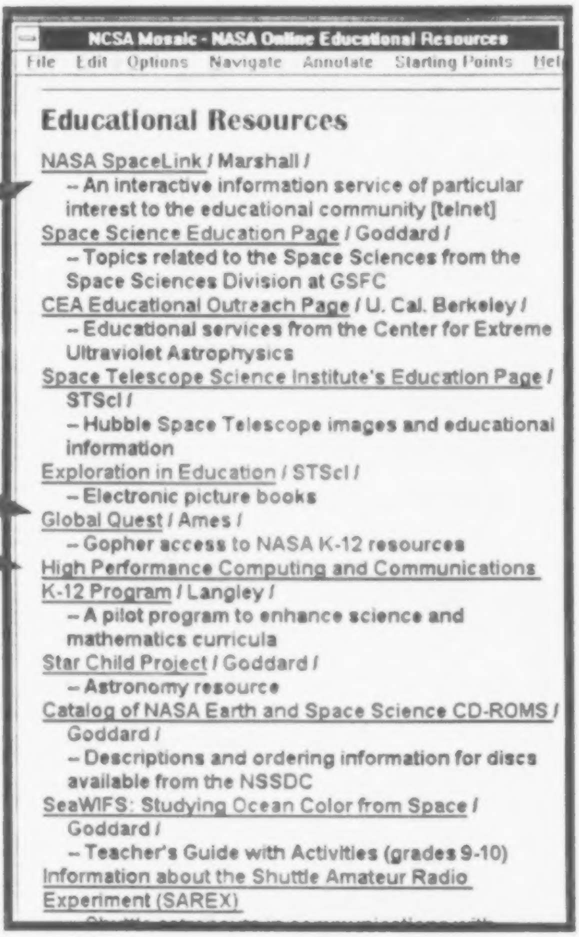
See also NASA "Hot Topics" for topics of public interest.

Lots of places to go from here:

NASA Spacelink

Global Quest

Langley's HPCC K12 Program Page


NCSA Mosaic - NASA Online Educational Resources
File Edit Options Navigate Annotate Starting Points Hel

Educational Resources

NASA SpaceLink / Marshall /
– An interactive information service of particular interest to the educational community [telnet]
Space Science Education Page / Goddard /
– Topics related to the Space Sciences from the Space Sciences Division at GSFC
CEA Educational Outreach Page / U. Cal. Berkeley /
– Educational services from the Center for Extreme Ultraviolet Astrophysics
Space Telescope Science Institute's Education Page / STScI /
– Hubble Space Telescope images and educational information
Exploration in Education / STScI /
– Electronic picture books
Global Quest / Ames /
– Gopher access to NASA K-12 resources
High Performance Computing and Communications K-12 Program / Langley /
– A pilot program to enhance science and mathematics curricula
Star Child Project / Goddard /
– Astronomy resource
Catalog of NASA Earth and Space Science CD-ROMS / Goddard /
– Descriptions and ordering information for discs available from the NSSDC
SeaWIFS: Studying Ocean Color from Space / Goddard /
– Teacher's Guide with Activities (grades 9-10)
Information about the Shuttle Amateur Radio Experiment (SAREX)

If you have questions about using the NASA Science Internet or about NAIC services, call: 1 (800) 858-9947 or 1 (415) 604 0600.

Send e-mail to: < naic@nasa.gov or> or <EAST::"naic@nasa.gov">

[illegible] 1994 NetTEACH NEWS [illegible] Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

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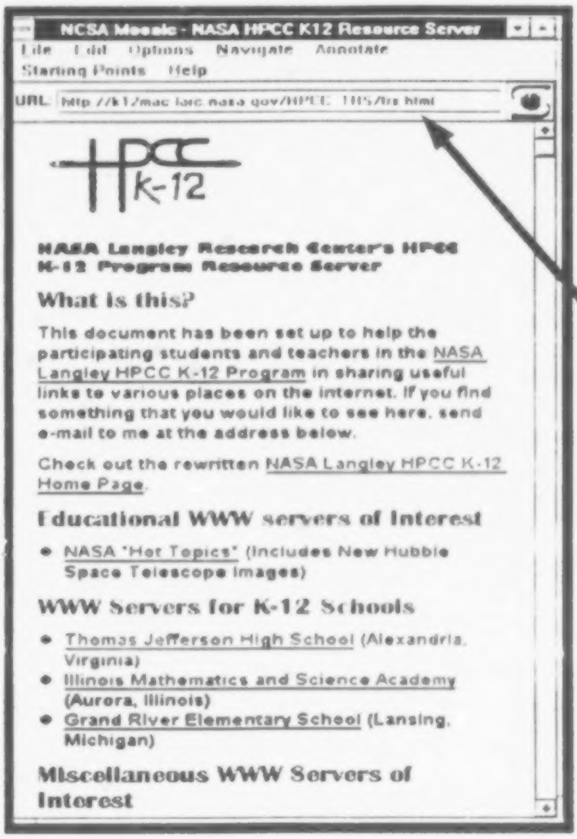
A Tour of Nasa on the Nets


NCSA Mosaic - NASA HPCC K12 Resource Server
File Edit Options Navigate Annotate
Starting Points Help
URL: http://k12mac.larc.nasa.gov/HPCC_TRS/trs.html
HPCC K-12

NASA Langley Research Center's HPCC K-12 Program Resource Server

What is this?

This document has been set up to help the participating students and teachers in the NASA Langley HPCC K-12 Program in sharing useful links to various places on the internet. If you find something that you would like to see here, send e-mail to me at the address below.

Check out the rewritten NASA Langley HPCC K-12 Home Page.

Educational WWW servers of Interest

- NASA "Hot Topics" (includes New Hubble Space Telescope images)

WWW Servers for K-12 Schools

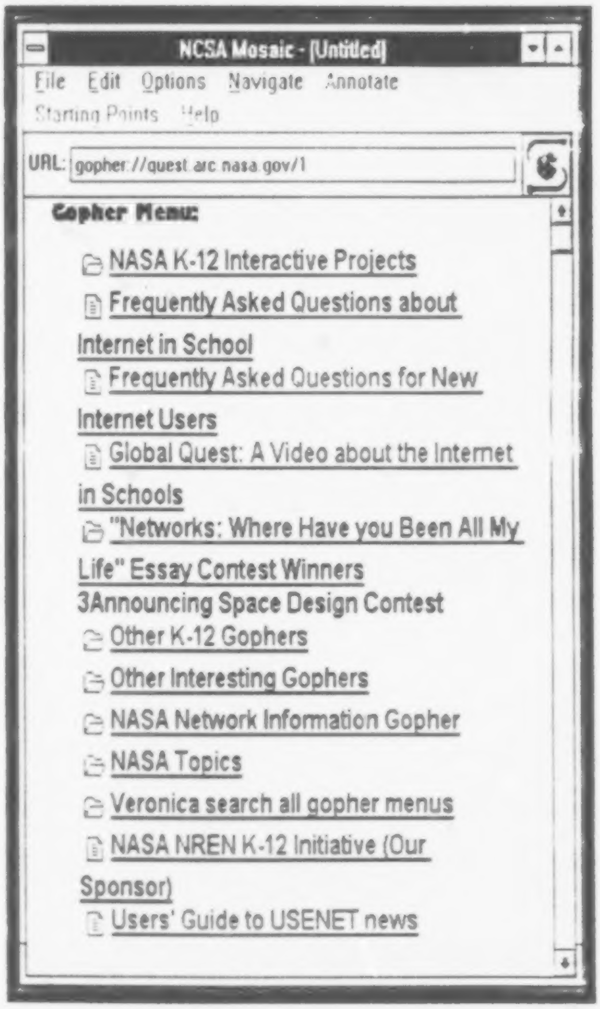
- Thomas Jefferson High School (Alexandria, Virginia)
- Illinois Mathematics and Science Academy (Aurora, Illinois)
- Grand River Elementary School (Lansing, Michigan)

Miscellaneous WWW Servers of Interest

From the NASA Langley Research Center HPCC K12 Program Page you can click to the NASA HPCC K12 Resource Server (shown to the left) or directly navigate there by pointing to:

URL:
http://k12mac.larc.nasa.gov/HPCC_TRS/trs.html

You can also ftp to 'k12mac.larc.nasa.gov' to access the archives.


NCSA Mosaic - [Untitled]
File Edit Options Navigate Annotate
Starting Points Help
URL: gopher://quest.arc.nasa.gov/1

Gopher Menu:

- NASA K-12 Interactive Projects
- Frequently Asked Questions about Internet in School
- Frequently Asked Questions for New Internet Users
- Global Quest: A Video about the Internet in Schools
- "Networks: Where Have you Been All My Life" Essay Contest Winners
- 3Announcing Space Design Contest
- Other K-12 Gophers
- Other Interesting Gophers
- NASA Network Information Gopher
- NASA Topics
- Veronica search all gopher menus
- NASA NREN K-12 Initiative (Our Sponsor)
- Users' Guide to USENET news

The NASA Global Quest Gopher is a click away from the NASA Online Directory (found on the bottom of page 12) but can also be reached directly by pointing to URL: http://quest.arc.nasa.gov/1

How to reach NASA resources via gopher.

1) Telnet to naic.nasa.gov and login as 'naic'

2) gopher to 'naic.nasa.gov' using your gopher client

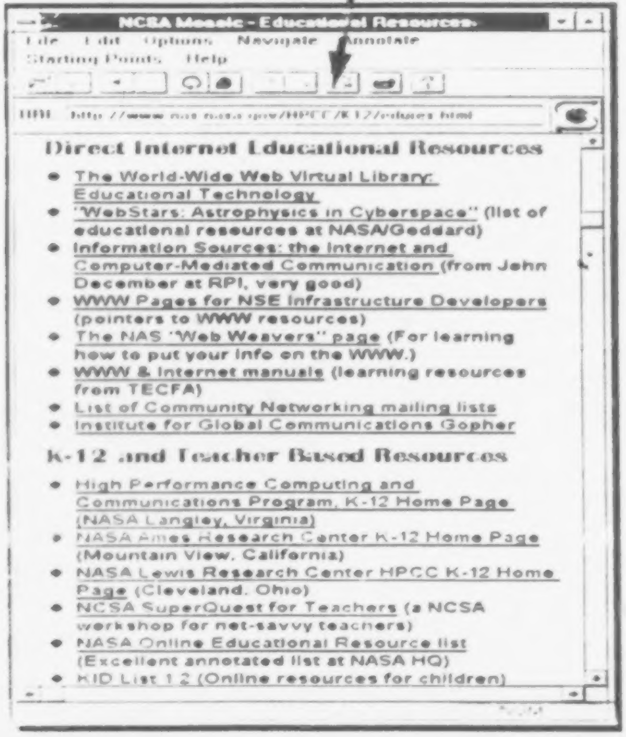
3) follow the gopher map: Other gophers/ North America/ USA/California/NASA Network Applications and Information Center OR Other gophers/ North America/USA/Maryland/NASA-Goddard

Copyright [illegible] NetTEACH NEWS [illegible] ISSN [illegible]

NASA on the NETS

The NASA Ames Research Center K12 Home Page is a guaranteed LONG and EXCITING expedition. Lots of stuff to explore here. It is still under construction but if you are willing to put up with some minor inconveniences, it is worth the trip. Point your web server to: URL:
http://quest.arc.nasa.gov/index.html
Anonymous FTP Access:
URL:ftp://quest.arc.nasa.gov
Gopher Access:
URL:gopher://quest.arc.nasa.gov
For more information: Quest User Support
Teacher Resource Center
MS T-025 Moffett Field, CA 94035-1000
e-mail: fuzzy@quest.arc.nasa.gov ;
tel: +1 415 604-0766; fax: +1 415 604-3445
(address FAXes to K-12 Internet Support at The Teacher Resource Center)

For another SUPER NASA page, point to:
http://www.nas.nasa.gov/HPCC/K12/edures.html


NCSA Mosaic - Educational Resources
File Edit Options Navigate Annotate
Starting Points Help

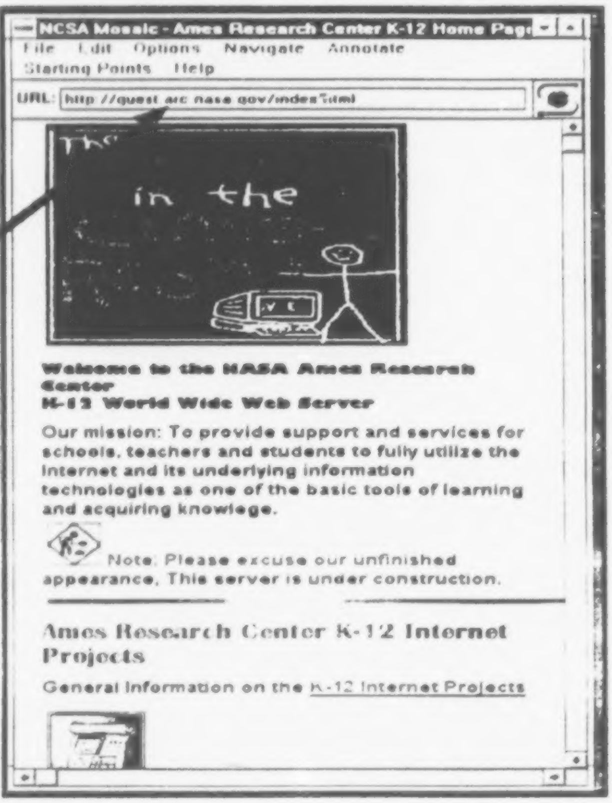
URL: http //www nas nasa gov/HPCC/K12/edures html

Direct Internet Educational Resources

- The World-Wide Web Virtual Library: Educational Technology
- "WebStars: Astrophysics in Cyberspace" (list of educational resources at NASA/Goddard)
- Information Sources: the Internet and Computer-Mediated Communication (from John December at RPI, very good)
- WWW Pages for NSE Infrastructure Developers (pointers to WWW resources)
- The NAS "Web Weavers" page (For learning how to put your info on the WWW.)
- WWW & Internet manuals (learning resources from TECFA)
- List of Community Networking mailing lists
- Institute for Global Communications Gopher

K-12 and Teacher Based Resources

- High Performance Computing and Communications Program, K-12 Home Page (NASA Langley, Virginia)
- NASA Ames Research Center K-12 Home Page (Mountain View, California)
- NASA Lewis Research Center HPCC K-12 Home Page (Cleveland, Ohio)
- NCSA SuperQuest for Teachers (a NCSA workshop for net-savvy teachers)
- NASA Online Educational Resource list (Excellent annotated list at NASA HQ)
- KID List 1.2 (Online resources for children)


NCSA Mosaic - Ames Research Center K-12 Home Page
File Edit Options Navigate Annotate
Starting Points Help
in the

URL: http //quest arc nasa gov/index.html

Welcome to the NASA Ames Research Center
K-12 World Wide Web Server

Our mission: To provide support and services for schools, teachers and students to fully utilize the Internet and its underlying information technologies as one of the basic tools of learning and acquiring knowlege.

Note: Please excuse our unfinished appearance, This server is under construction.

Ames Research Center K-12 Internet Projects

General Information on the K-12 Internet Projects

You can directly telnet to many other NASA sites such as Spacelink, the Compton Gamma Ray Observatory, the First International Land Surface Climatology Field Experiment at Goddard, NASA Online Networking Aid, and others. Some of the telnets are not yet working.

SOME POPULAR TELNET SITES:

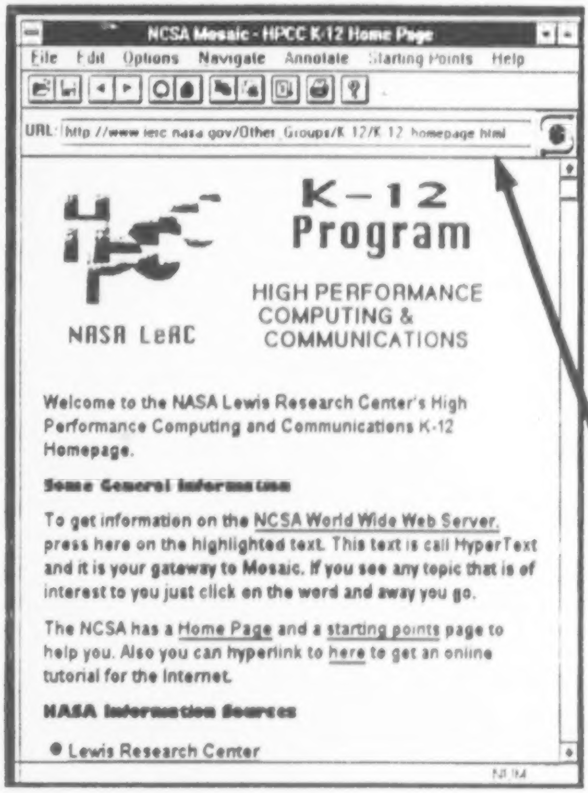
Telnet to Spacelink.msfc.nasa.gov and follow the login instructions.

Telnet to ned.pac.caltech.edu (NASA Extragalactic Database System) and login as "ned".

Telnet to nssdca.gsfc.nasa.gov (NSSDC's Online Services) and login as "nodis".

Telnet to grossc.gsfc.nasa.gov (Compton Gamma Ray Observatory) and login as "gronews".

Telnet to pldsg3.gsfc.nasa.gov (FIFE) and login as "fifeuser".


NCSA Mosaic - HPCC K-12 Home Page
File Edit Options Navigate Annotate Starting Points Help
URL: http //www lerc nasa gov/Other Groups/K 12/K 12 homepage html
NASA LeRC
K-12 Program
HIGH PERFORMANCE COMPUTING & COMMUNICATIONS

Welcome to the NASA Lewis Research Center's High Performance Computing and Communications K-12 Homepage.

Some General Information

To get information on the NCSA World Wide Web Server, press here on the highlighted text. This text is call HyperText and it is your gateway to Mosaic. If you see any topic that is of interest to you just click on the word and away you go.

The NCSA has a Home Page and a starting points page to help you. Also you can hyperlink to here to get an online tutorial for the Internet.

NASA Information Sources

- Lewis Research Center

NASA on the NETS

The NASA/Lewis Research Center (LeRC) in Cleveland, Ohio has put up a WWW server for the K-12 Community. This server allows you to access other NASA Information Servers. various topical areas, the Scholatsic Internet Center, Lewis HPCC K-12 Teacher Training, and allows searches on the net as well. If you go to the NASA/Lewis server you can access current information on STS-68: NASA Television Coverage.

So point to URL:

http://www.lerc.nasa.gov/Other_Groups/K-12/K-12_homepage.html

Other NASA edupages to go to:

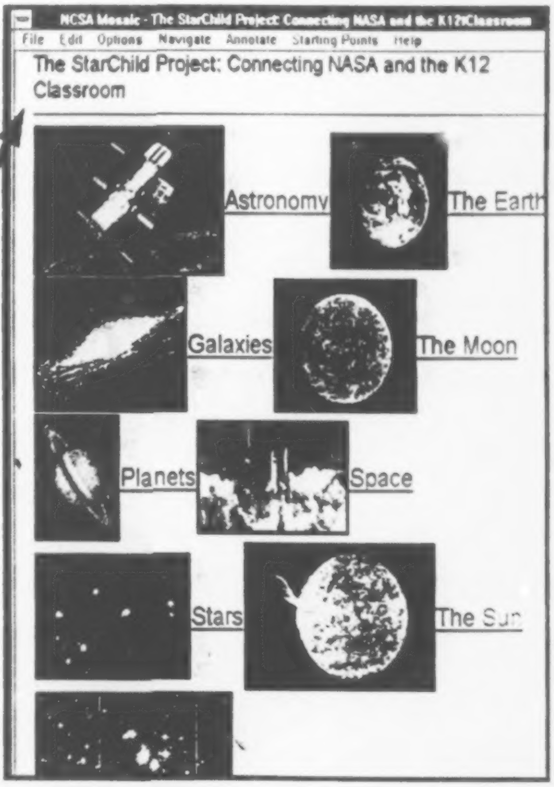
NASA Home Page
URL: http//hypatia.gsfc.nasa.gov/NASA-homepage.html

The Star Child Project: Connecting NASA and the K12 Classroom
URL: http://guinan.gsfc.nasa.gov/k12/starchild.html

Goddard Flight Space Center - Teachers Resource Library
URL: http://sdcd.gsfc.nasa.gov/ISTD/DLT/vc/trl.html

The Compton Gamma Ray Observatory (For Middle & Secondary Level Classrooms)
URL:
http://www.gsfc.nasa.gov/education/curricula/GRO_Ed Brfs.html

NASA WWW servers
URL: http://nova.sti.nasa.gov/www.html


NCSA Mosaic - The StarChild Project: Connecting NASA and the K12 Classroom
File Edit Options Navigate Annotate Starting Points Help
Astronomy
The Earth
Galaxies
The Moon
Planets
Space
Stars
The Sun

The StarChild Project: Connecting NASA and the K12 Classroom

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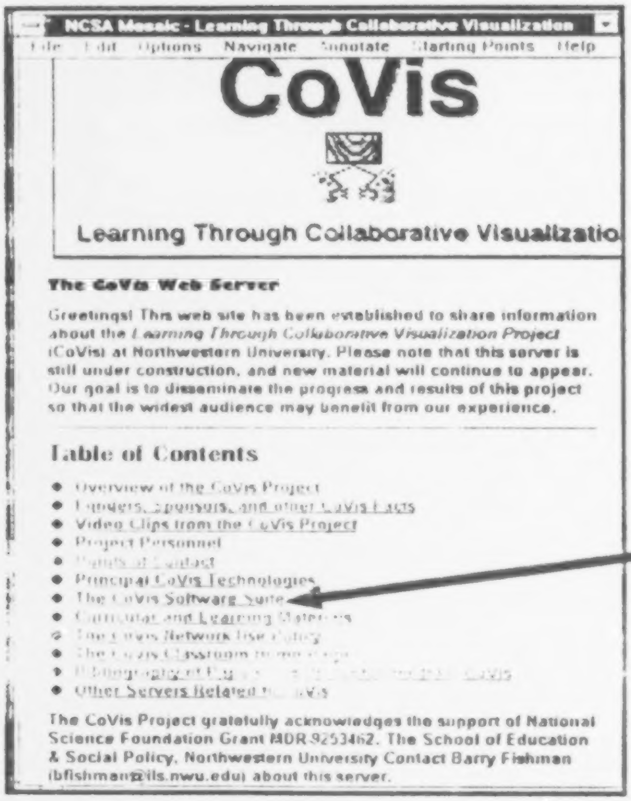
Netpicks


NCSA Mosaic - Learning Through Collaborative Visualization
File Edit Options Navigate Annotate Starting Points Help

CoVis

Learning Through Collaborative Visualizatio

The CoVis Web Server

Greetings! This web site has been established to share information about the *Learning Through Collaborative Visualization Project* (CoVis) at Northwestern University. Please note that this server is still under construction, and new material will continue to appear. Our goal is to disseminate the progress and results of this project so that the widest audience may benefit from our experience.

Table of Contents

- Overview of the CoVis Project
- Funders, Sponsors, and other CoVis Facts
- Video Clips from the CoVis Project
- Project Personnel
- Points of Contact
- Principal CoVis Technologies
- The CoVis Software Suite
- Curricular and Learning Materials
- The CoVis Network Use Policy
- The CoVis Classroom [illegible]
- Bibliography of [illegible] CoVis
- Other Servers Related to CoVis

The CoVis Project gratefully acknowledges the support of National Science Foundation Grant MDR-9253462. The School of Education & Social Policy, Northwestern University Contact Barry Fishman (bfishman@ils.nwu.edu) about this server.

URL: http://www.covis.nwu.edu/

Check out the CoVis Software Suite. Explore the Collaboratory Notebook and the various visualization tools.

CoVIS Visualization Tools Now Available

The Learning Through Collaborative Visualization (CoVis) Project at Northwestern University has released new resources on the CoVis Webserver. The Weather Graphics Tool is now available for downloading. This is a plug-in module for Aldus SuperPaint which is designed to make it easy to draw professional-quality weather maps. These maps can be used by students (or others) for weather prediction activities or to illustrate concepts in the weather (i.e. what happens when a cold front meets a warm front?) You must already have Aldus SuperPaint 3.0 or higher in order to use it. Blank maps of the U.S. are also provided for your convenience. The Weather Graphics tool is available from the CoVis Webserver or via FTP at the addresses given below.

The CoVis Project is conducting research and development of new approaches to high school science education through collaborative project work with advanced networking technologies, collaborative software, and visualization tools. CoVis is funded by the National Science Foundation and various industry partners and sponsors.

To find out how the CoVis Project is helping to reform science education by linking students, teachers, and scientists via networking, videoconferencing, screen sharing, and visualization technologies, take a look at a new page of QuickTime video clips from the CoVis project's most recent video. They are reachable from the CoVis Home Page at the URL given below.

Follow this URL to the CoVis Webserver:

http://www.covis.nwu.edu/

The Weather Graphics Tool and associated maps are also available via FTP from:

ftp://www.covis.nwu.edu/public/Weather Graphics Tool.sea.hqx

ftp://www.covis.nwu.edu/public/BlankMaps(stns).sea.hqx

ftp://www.covis.nwu.edu/public/BlankMaps.sea.hqx

For further information please contact: Barry Fishman,
School of Education &
Social Policy
2115 N. Campus Drive
Northwestern University
Evanston, IL 60208
tel: +1 708 467-2405
fax: +1 708 467-1930
e-mail: bfishman@ils.nwu.edu

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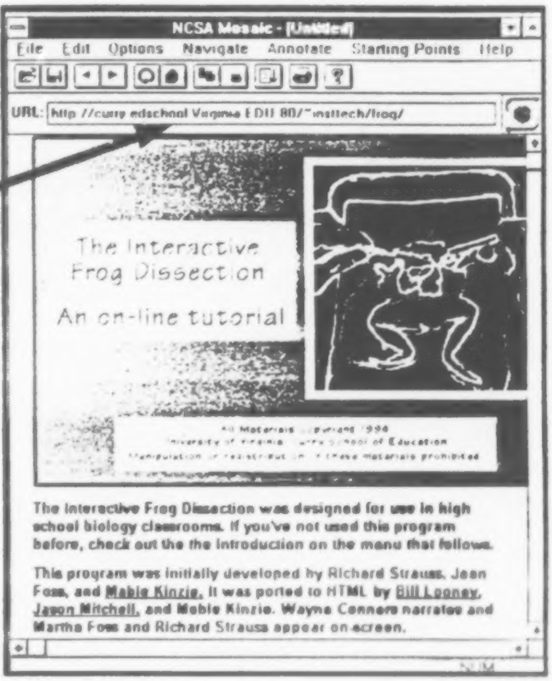
Netpicks

The Interactive Frog Dissection

New from the University of Virginia: The Curry School of Education's Instructional Technology Program has developed an INTERACTIVE FROG DISSECTION for the World Wide Web.

The Title Page is found at URL:
http://curry.edschool.virginia.edu/~insttech/frog/


NCSA Mosaic - [Untitled]
File Edit Options Navigate Annotate Starting Points Help
URL: http //curry edschool Virginia EDU 80/~insttech/frog/
NUM

The Interactive Frog Dissection

An on-line tutorial

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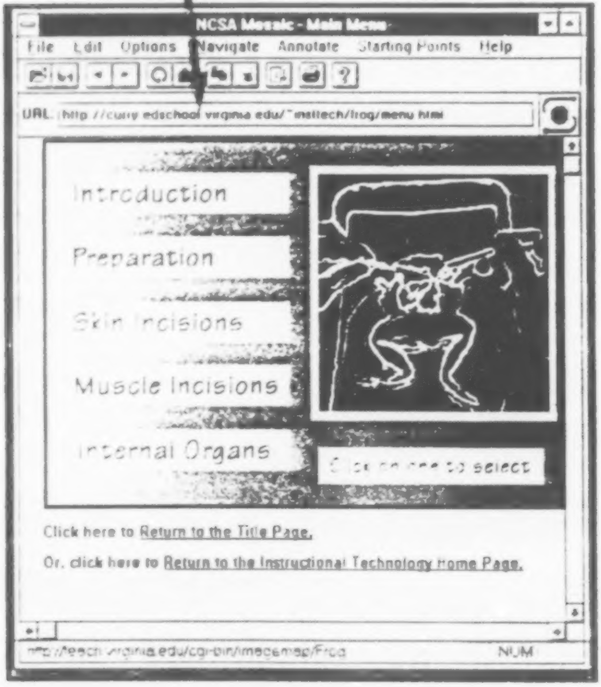
University of Virginia, Curry School of Education
Manipulation or redistribution of these materials prohibited

The Interactive Frog Dissection was designed for use in high school biology classrooms. If you've not used this program before, check out the the introduction on the menu that follows.

This program was initially developed by Richard Strauss, Jean Foss, and Mable Kinzie. It was ported to HTML by Bill Looney, Jason Mitchell, and Mable Kinzie. Wayne Conners narrates and Martha Foss and Richard Strauss appear on screen.

The Main Menu is found at URL:
http://curry.edschool.virginia.edu/~insttech/frog/menu


NCSA Mosaic - Main Menu
File Edit Options Navigate Annotate Starting Points Help
URL: http //curry edschool virginia edu/~insttech/frog/menu html
Introduction
Preparation
Skin Incisions
Muscle Incisions
Internal Organs
Click on one to select
http://teach.virginia.edu/cgi-bin/imagemap/Frog
NUM

Click here to Return to the Title Page.

Or, click here to Return to the Instructional Technology Home Page.

The tutorial combines text with 60 in-line color images and 17 QuickTime movies illustrating dissection procedures and internal organs. Numerous clickable image maps provide interactive practice. Our research with pre-Web versions of this program suggests that it is a valuable preparation tool or even a useful substitute for laboratory dissection.

Send comments to:
insttech@virginia.edu

[illegible] 1994 NetTEACH NEWS [illegible] Herndon, VA 2207[illegible] info@netteach.chaos.com [illegible] ISSN [illegible]

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News from the Internet Society

LATEST INTERNET MEASUREMENTS REVEAL DRAMATIC GROWTH IN 1994

The Internet Society reports that 1 million new hosts were added during the first six months of 1994. This represents an annual increase of 81 percent . Much of the increase came from outside the USA in more than 80 countries.

For more than ten years, the Internet has been measured almost every quarter by the number of host computers reachable. This is a key value because one of the most fundamental capabilities of the Internet is to directly link virtually any kind of computer across almost any kind of telecommunication medium. The measurement is described in the Internet document RFC 1296.

The latest measurement - sometimes referred to as "the Internet Walk" - shows 3.2 million reachable machines.

The so-called Internet Domain Survey is the product of Mark Lottor of Network Wizards. The Domain Survey attempts to discover every host on the Internet by doing a complete search of the Domain Name System. The latest results were gathered during late-July 1994 are listed below. For more detailed data see the zone directory on ftp.nw.com, or the Net Wizards World Wide Web home page at http://www.nw.com

	July 94	Apr 94	Jan 94	Oct 93	Jul 93	Change (year)
Hosts:	3,212,000	N/A	2,217,000	2,056,000	1,776,000	81%
Domains:	46,000		30,000	28,000	26,000	77%

**The Internet Society is the international organization for the Internet,
its technologies and applications. For more information on this subject or other information concerning the Internet, the Society's activities and publications, contact the Society's International Secretariat or visit its WWW home page at:**

-

http://info.isoc.org

**12020 Sunrise Valley Dr. Suite 270
Reston VA 22091
USA**

**tel: +1 703 648 9888
800 468 9507 (USA only)
fax: +1 703 648 9887**

A Partial Listing of Country Host Statistics - July 1994

Country	Hosts	%ofTotal	ChangeFromJan94
US-educational (higher)	856,234	27%	41%
US-commercial	774,735	24%	36%
US-government	169,248	5%	31%
US-defense	130,176	4%	26%
US-non-profit organization	66,459	2%	31%
US-network operator	30,993	1%	146%
US-local	16,556	1%	153%
US total	2,044,401	63%	38%
France	71,899	2%	117%
New Zealand	14,830	<1%	157%
Denmark	12,107	<1%	175%
Belgium	12,107	<1%	147%
Czech Rep.	5,639	<1%	169%
Hungary	5,390	<1%	122%
Chile	3,703	<1%	170%
Ireland	3,308	<1%	103%
Russian Fed. (SU)	3,145	<1%	142%
Greece	2,958	<1%	249%
Malaysia	1,322	<1%	204%

Pick Student Project: Vocal Point
An Information Age Student Newspaper

Vocal Point is a monthly newspaper created by the K-12 students of the Boulder Valley School District.

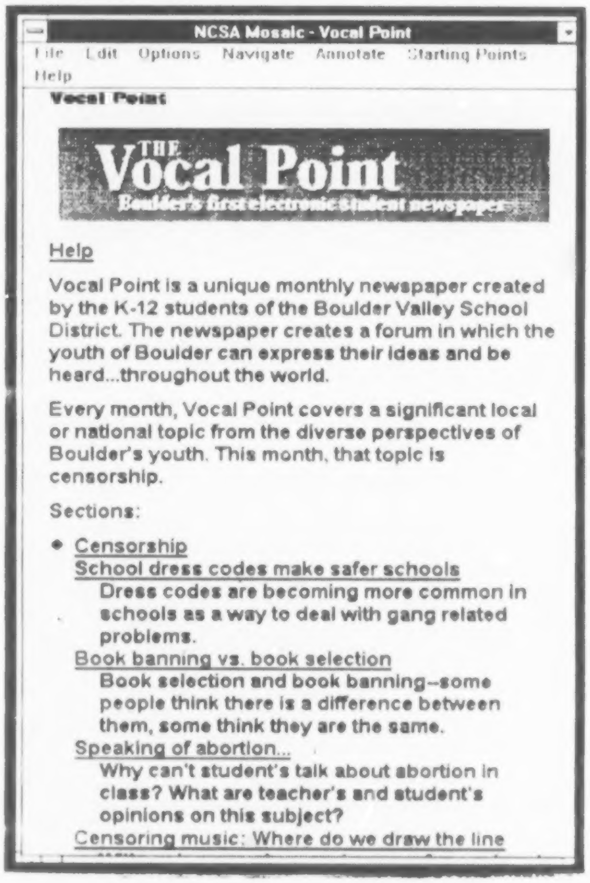
Every month, Vocal Point covers a significant local or national topic from the diverse perspectives of BoulderUs youth. For the first edition, published in June 1994, the topic was censorship.

Vocal Point is created completely by the students in the school district. Noah Horton, a 13-year-old Centennial Middle School student, was the designer and programmer of the html version of the on-line newspaper. The other 14 members of the editorial staff were involved in the reporting, editing, graphics and marketing of the publication.

The students participating in Vocal Point are using the Internet not only to publish their newspaper, but also to research their topics using sources from all over the community as well as the world.

The electronic newspaper provides the important context for information technology within the classroom. The students, as well as the teachers, are motivated to learn how to use on-line resources in a way that is exciting and relevant.

The use of Internet within the classroom is one of the most engaging methods of instruction since students are naturally intrigued by the types of resources available to them on the networks. Random access to this information without a context, however, does not allow the students to achieve within a full range of educational objectives. By creating a newspaper using the networks as a key information source, the students are allowed to complete a cycle of information processing: hypothesize, retrieve, process, theorize and produce.


NCSA Mosaic - Vocal Point
File Edit Options Navigate Annotate Starting Points Help
Vocal Point
THE Vocal Point
Boulder's first electronic student newspaper

Help

Vocal Point is a unique monthly newspaper created by the K-12 students of the Boulder Valley School District. The newspaper creates a forum in which the youth of Boulder can express their ideas and be heard...throughout the world.

Every month, Vocal Point covers a significant local or national topic from the diverse perspectives of Boulder's youth. This month, that topic is censorship.

Sections:

- Censorship
  School dress codes make safer schools
    Dress codes are becoming more common in schools as a way to deal with gang related problems.
  Book banning vs. book selection
    Book selection and book banning--some people think there is a difference between them, some think they are the same.
  Speaking of abortion...
    Why can't student's talk about abortion in class? What are teacher's and student's opinions on this subject?
  Censoring music: Where do we draw the line

Vocal Point provides an opportunity for all schools within the disrict,regardless of technological means, to contribute to the product. Teachers are encouraged to participate within the context of their individual curriculum structure using the technological tools available to them.

There are no direct costs to the school district, as the newspaper is structured within the current scope of available resources. As these resources grow within each school, so can the level of participation. The idea is to do more with less while allowing room for growth as resources increase.

Professional credit is available to the teachers participating in the Vocal Point project. The teachers have the added incentive to participate at their own level, thereby receiving individual proportions of credit for time spent. Credit is also given to the teachers helping with the curriculum development and future planning of the project.

By Fall 1994, a project guide will be made available for all those interested in participating in or recreating the electronic newspaper. From this guide, teachers will be able to determine how and to what extent they would like to participate. A complete project history will allow other school districts to develop similar projects based on the Boulder Valley model.

Vocal Point is published on the World Wide Web and is linked to the Boulder Community Network . Readers can RopenS the newspaper from either their personal computers or from the Boulder Community Network information kiosks that will be placed throughout Boulder later this summer. From the front page of Vocal Point, readers select from a list of general topics, then scroll through articles in sequence. They can also select articles directly from a list of headlines and summaries.

The project is a collaborative effort between the Boulder Valley School District, the Boulder Community Network (BCN) and the Knight-Ridder Information Design Lab. The Lab initiated the project to test electronic publishing concepts and to increase awareness of how newspapers can be used as a cross-curricula educational tool within the classroom.

Vocal Point can be found at:
http://bvsd.k12.co.us/cent/Newspaper/Newspaper.html

For more information, contact:

Jill Tucker
e-mail: < jtucker@knightridder.com>
tel: +1 303-938-8427

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The Digital Calendar

September

7-8 September. **Breaking The Barriers to the National Information Infrastructure** ANA Hotel, Washington, D.C. Sponsored by The Council on Competitiveness and The Clinton Administration Information Infrastructure Task Force. Up-to-date information on the conference will be available on the IITF computer bulletin board system. Access through the Internet: gopher/telnet servers <iitf.doc.gov>. Access through telephone modem: (202) 501-1920 (parameters- N, 8, 1) Or call The Council on Competitveness at +1 202 785-3990.

12-16 September **NetWorld+Interop 94 ATLANTA** Georgia World Congress Center, Atlanta, GA. More than 600 leading LAN,WAN, and telecommunications companies along with 60,000 networking professionals will be in attendance at NetWorld+Interop. For more information call: 1-800-488-2883

19-23 September. **EW-ED'94** in Crimea, Ukraine. The East-West Conference on Computer Technologies in Education (EW-ED'94) is the third in the series of conferences designed to report the best research in the field of Computer Techno-logies and Education and to provide oppor-tunities for the exchange of information and ideas between Eastern and Western scientists. For further information, contact: Simferopol:Dr Svetlana Dikareva, Computer Center, Simferopol State University, Yaltinskaya, 4, Simferopol, Crimea, Ukraine 333036; E-mail: cted94%ccssu.crimea.ua@ussr.eu.net; tel: 0652 23-23-82; fax: 0652 23-23-10

25-28 September **Learning Environment Technology - Australia 1994 (LETA 94)** Adelaide, Tea Tree Gully campus of the Torrens Valley Institute of Vocational Education. LETA 94 is an international event including a Conference and inter-activeExpo. It is de-signed to provide delegates from Australia and overseas with a range of experiences in learning technology, its application to the learning environment, the built environment is which technology is used, and the management of technology based learning environments. For more information contact: LETA 94 Conference, C/- SAPMEA Conventions, 80 Brougham Place,
North Adelaide
South Australia 5006
tel: international + 618 239 1515
fax: international + 618 239 1566
email: rleonard@nexus.edu.au

October

11-14 October **PNC - People, Networks & Communication '94** Honolulu; Island of Oahu - " The Gathering Place ", Hawaii; Mid-Pacific Conference Center, Hilton Hawaiian Village Resort. Sponsored by The Pacific Network Consortium Limited. Contact Information: Conference Chairman: Dr. Ernest Kho, Jr., Chairman - Department of Chemistry, University of Hawaii - Hilo. Tel: 808.933.3383; Fax: 808.933.3693; E-mail: ekho@uhunix.uhcc.hawaii.edu

13-15 October **Schools for the Future: An American Renaissance;** San Antonio, Texas, Marriott River Center Hotel. Hosted by the Renaissance Group and the Sam Houston State University For information contact: **<ICC_DRL@SHSU.EDU>**

14-16 October **MATHEMATICS, SCIENCE & TECHNOLOGY: PARTNERS FOR THE FUTURE,** California State University, Fresno, CA. Sponsored by The California Mathe-matics Council Central Section and The School Science and Mathematics Association. For information contact: PROGRAM CHAIR,Elizabeth Sullivan; FCOE, 1111 Van Ness Fresno, CA 93721; tel: 209-265-3071 e-mail: **< esulliv@eis.calstate.org>**

25-26 October **Multimedia Schools '94** The Practical, How-to Conference & Expo for School Professionals Working with Multimedia, CD-ROMS, Online & The Internet. Hyatt Regency, San Francisco, CA. For an Advance Program tel: +1 203-761-1466 or 800-248-8466; fax: +1 203-761-1444, or mail coupon to: MA'94, 462 Danbury Road, Wilton, CT 06897-2126

31 October to 3 November **EDUCOM'94, Transforming Education, Measures and Milestones,** San Antonio Convention Center, San Antonio, Texas. Hosted by the University of Texas at San Antonio and Trinity University. The premier conference on information technology in higher education. More detailed information about EDUCOM'94 and preconference seminars can be obtained via WAIS, Gopher, or ananymous FTP from the EDUCOM server at <educom.edu> or by sending e-mail to <conf@educom.edu>, or by calling +1 202 872-4200.

November

3- 5 November **15TH ANNUAL INSTRUCTIONAL TECHNOLOGY CONFERENCE** at the Sheraton Tacoma, Tacoma, WA, USA. Hosted by the Instructional Technology Standing Committee of the Communications Technology Center of the Washington State Community and Technical Colleges. For information send e-mail to:

< institute@ctc.ctc.edu>

FAX: (206) 881-4470
voice: (206) 881-4409
snail mail: Communications Technology Center, 3860 - 159th Ave NE, #150, Redmond, WA 98052

10-13 November **TEL Ed'94** Albuquerque Convention Center in Albuquerque, NM. This conference is one of the premier conferences for educators on distance education technologies, including networking for instructional purposes. Over 1000 educators, policymakers and researchers are expected to participate. For information contact: Lori Novak, ISTE, Tel Ed'94, 1787 Agate Street, Eugene, OR 97403-1923; tel: +1 503-346-2411, 'ax: +1 503-346-5890; e-mail: <Lori_Novak@ccmail.uoregon.edu>

March 1995

22-25 March 1995 **SITE'95** 6th International Conferene in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: **<AACE@virginia.edu>**

INTERNET INFOSTORE

GlimpseHTTP

GlimpseHTTP is a collection of tools that allows you to use the glimpse search engine * to combine efficient search and browse facilities on your HTTP server. GlimpseHTTP allows you to integrate search with browsing. If you have several nested directories which the user may browse, glimpseHTTP can be used to automatically add a search form to each directory such that only the relevant directories will be included in the search.

The current version of GlimpseHTTP was tested under httpd 1.2 HTML server from NCSA and glimpse currently works on many Unix platforms. To search and browse the information any HTML browser can be used. This includes NCSA Mosaic for X-Windows, MS-Windows and Macintosh, Lynx and other browsers. For maximum convenience your browser should support forms, although minimal functionality can be achieved with any browser.

(*Glimpse (which stands for GLobal IMPlicit SEarch) is an indexing and query system that allows you to search through an entire UNIX file system in many (possibly nested) directories very quickly)

GLIMPSEHTTP
- FTP sites with search possibilities;
- news archiving sites;
- any search application which should be accessed over local or global network where searching for approximate match and/or saving of disk space for the index is an issue.

GLIMPSE AND GLIMPSEHTTP are available in source form and executables for different platforms from:

ftp://cs.arizona.edu/glimpse/glimpseHTTP.1.0.src.tar.Z
ftp://cs.arizona.edu/glimpse/glimpseHTTP.README (intro)
ftp://cs.arizona.edu/glimpse/glimpse.1.1.src.tar.Z
ftp://cs.arizona.edu/glimpse/glimpse.1.1.bin.XXX.tar.Z
(where XXX stands for several popular platforms)

Also, see GlimpseHTTP home page (which includes a nice demo server) at
http://glimpse.cs.arizona.edu:1994/glimpsehttp.html
And Glimpse home page at
http://glimpse.cs.arizona.edu:1994/
A slightly customised version of GlimpseHTTP is running the Computer Science Bibliographies search and browse server.
http://glimpse.cs.arizona.edu:1994/bib

AUTHORS
Paul Klark (GlimpseHTTP)
Udi Manber, Sun Wu, and Burra Gopal (Glimpse)
University of Arizona, Department of Computer Science

Alpha 6 version of NCSA Mosaic for Machintosh

The Alpha 6 version of NCSA Mosaic for the Macintosh 2.0 was released Tuesday, July 26, 1994.

A new alpha release has be placed on the anonymous FTP server.

Warning! This is an ALPHA release, therefore there are many new features or bugs that you will need to be aware of to make your use of the new release a pleasant experience. You may encounter problems that will cause your machine to crash. You may not find certain aspects of the program aesthetically pleasing, and the program will trash your current preferences.

Please make a copy of your 1.0.3 preferences file (Mosaic Preferences) before using the alpha version.

HOW TO GET NCSA MOSAIC :

NCSA Mosaic is available via anonymous ftp. Please enter 'anonymous' asthe name and your complete email address as the password.

site: ftp.ncsa.uiuc.edu (141.142.20.50)
location: /Mosaic/Mac (mac version)

URLs:
ftp://ftp.ncsa.uiuc.edu/Mac/Mosaic/NCSAMosaicA6.68k.hqx 68K version

ftp://ftp.ncsa.uiuc.edu/Mac/Mosaic/NCSAMosaicA6.PPC.hqx PowerMac version

The NCSA ftp server is being overloaded with requests for the Mosaic software. Because of this, you may get an error message. Please wait a while and try again when the server may not be as busy.

FILES:

NCSAMosaicA6.68k.hqx - 68K version

NCSAMosaicA6.PPC.hqx - PowerMac version

Colleen's Vignettes on Information Schools continued from p. 4

Middle School in France to explore connections between mathematics and the arts (their teachers met while reading discussion archives on KIDSNET: ftp> vulcan.phyast.pitt.edu). The Library of Congress' Marvel system (gopher> marvel.loc.gov) provided access to colorful paintings by Paul Klee and Wassily Kandinsky that were inspired by rhythms in mathematics and music. The Vatican's Online Library (via University of Virginia's gopher> gopher.lib.virginia.edu) provided 15th-century chant manuscripts that students are using as source material for a study of line in the visual and aural arts. The gorgeous, illuminated manu-scripts are being transcribed into standard music notation, and will be uploaded to Miro's gopher server and shared as MIDI files with acoustic and electronic musicians at both schools. The works will be performed later in school concerts and on their local communities' cable television stations.

The math teachers at Mobius Strip Middle School use several excellent Internet resources to build their exciting curriculum projects. They download math-related newsgroups, software, and ideas about textbooks from the Geometry Forum (gopher> copernicus.bbn.com).

High School Scenario- FTP as a Curriculum Tool

Students in Comparative Geology 101 at Galaxy Senior High* are studying geologic features on Earth and on other planets.They have been analyzing 20 galactic sites by viewing current satellite image files stored on the Internet. The Jet Propulsion Laboratory's Education Archive (ftp> pubinfo.jpl.nasa.gov. /pub) and the NASA Archive (ftp> ames.arc.nasa.gov. /pub/SPACE) have provided enormous resources of rich gif images from the Voyager missions and the Space Shuttle. The students' analysis tools include a variety of software for mathematic and scientific visualization, including NIH Image. They download all the viewing software (for many kinds of desktop computers) free from the Ames NASA archives. Measurements of major features, such as caulderas, have been made by comparing given pixel size values with the image values.

The students perform keyword searches on related terms through the AskERIC Archive (ftp> ericir.syr.edu. /pub/Q&A) and hold live videoconferences with electronic "visitors" (scientists and government officials) using Cornell University's CU-SeeMe software (see Global Schoolhouse Project; telnet> acme.fred.org) while preparing their final reports.

Since this was all new to their teacher, Mrs. Venus de Milo, she was happy to find the extensive Internet "how-to" documentation available from the InterNIC Archives (ftp> ftp.sura.net. /pub/nic).

Mrs. de Milo is planning a student-driven, collaborative project with a New Zealand class she met through reading F.A.S.T. News (e-mail to isast@garnet.berkeley.edu). She and Marc Uri (the collaborating teacher from Jupiter Hollow, NZ) are planning to publish an article in NetTEACH News and, coincidentally, both drive Saturns.

She is reading about Mosaic, a new World-Wide Web navigation tool, from sources in the NCSA Archive (ftp> ftp.ncsa.uiuc.edu. Education/Education _Resources) and hopes to have her students contribute to the new Scientific Visualization HomePage at Washington State University (http://davinci.vancouver.wsu.edu/ MathVis/MathVis.html), created by professionals taking a course through the Teacher Enhancement Network.

Colleen Foley Wheeler
e-mail: <colleenw@mcet.edu>
e-mail: <cwheeler@A1.mec.mass.edu>

Mass Learning Pike is a satellite broadcast network dedicated to improving the quality of education in grades K-12 by using the most of advanced technology for the delivery of distance learning courses and events.

The network allows member school systems throughout the Commonwealth of Massachusetts to participate in interactive programming developed by the Massachusetts Corporation for Educational Telecommunications (MCET).

The Mass LearnNet computer network serves as a communications link for electronic mail; program information, registration and evaluation; conferencing; time-shifted interaction between participants and program presenters; and access to the Internet.

Over 225 Massachusetts school systems and dozens of districts in 17 states across the nation are members of MassLearn Pike.

**For further information contact: MCET, 38 Sidney St. Suite 300, Cambridge, MA 02139-4135;
tel: +1 617 621-0290; fax: +1 617-621-0291**

The NetTeach Bookstore: GUIDES

The Digital Information Infrastructure Guide (DIIG)

The Massachusetts Research Program on Communications Policy (RPCP) is in the process of updating its database of information about current research projects and critical public and private initiatives for tomorrow's information infrastructure. The purpose of the Digital Information Infrastructure Guide (DIIG) is to facilitate the development of the national information infrastructure (NII) by providing government, business and academic leaders with easy access to NII information. The guide will document research done by NII stakeholders and model the interaction between NII stakeholders and their interests.

DIIG's current goals are to acquire more surveys and information about NII projects, update outdated DIIG documents, and receive feedback on DIIG.

If there are any documents in DIIG that you have submitted or that are associated with your research, then you are invited to take a look at them and report any applicable changes or updates. In addition, if you are involved in new research or know of any other groups that would be interested in appearing in DIIG, please send information regarding those projects.

To view DIIG on the Internet, you can use any gopher client or any WWW client (e.g. Mosaic, Lynx, MacWeb, etc.). To use gopher, connect to:

farnsworth.mit.edu (port 70)

To use the WWW, open the URL:
http://farnsworth.mit.edu/diig.html

All of the content of DIIG is indexed and searchable by keyword, so to find any documents assocaited with your project, then just go to the top level and choose:

"Keyword Search of All of DIIG"

Please reply to:

Email: diig@farnsworth.mit.edu
Voice: (617) 253-6828
Fax: (617) 253-7326
Snail-Mail:
DIIG (attn: Jonathan Litt)
MIT, E40-218
1 Amherst Street
Cambridge, MA 02139

If you have comments or questions about DIIG, contact:

Dr. Lee McKnight
Research Program on
Communications Policy (RPCP)
Massachusetts Institute of Technology
Building E40-223
1 Amherst Street
Cambridge, MA 02139
Phone: (617) 253-0995
Email: mcknight@farnsworth.mit.edu

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The Guide to NASA Online Resources

The Guide is intended to showcase NASA and NASA-related online resources. Compiled by NASA's Network Applications and Information Center (NAIC), the Guide contains scientific, educational and government resources of interest to both general Internet users and the NASA science community. Some of the highlights of the Guide include the JPL Information Archive, Space Telescope Science Institute (home of the Hubble Space Telescope Data Archive), NASA Spacelink, the Strasbourg Astronomical Data Center, the NASA/NREN K-12 gopher along with pointers to image databases, software archives and other useful information of interest to educators, students, scientists and the general Internet community.

The Guide contains overview information and WWW links, and is searchable to make it easy to find specific information of interest.

The Guide is available via gopher or the Web by following the URLs:

gopher://naic.nasa.gov/Guide to NASA Online Resources

URL : http://naic.nasa.gov/naic/guide/

For further information call the NAIC at 1-800-858-9947 or 1-415-604-0600, or e-ial: <naic@nasa.gov>

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The Educator's Guide to the Internet, 170 pages, US $16 .

The 170 page book was written and designed by educators for educators. It is a user-friendly guide to the Internet and contains nearly 50 lesson plans for grades K-12 that model ways teachers can enhance learning by intergrating networking into the curriculum.

There are detailed tutorials, easy-to-follow and useful examples, and tips on major Internet functions.

It also contains a copy of the "Global Quest: The Internet in the Classroom" -- a NASA videotape showing how teachers and classes can unlock the power of the Internet, and a diskette (either IBM-compatible or Macintosh) packed with useful documents and software to help you on the way to exploring and getting the most out of the 'Net.

For ordering information, send a message to:

The Educator's Guide to the Internet
Virginia Space Grant Consortium
2713-D Magruder Boulevard
Hampton, VA 23666
e-mail: <vsgc@pen.k12.va.us

**"*The Educator's Guide to the Internet" is made possible in part by a grant from the Eisenhower Math/Science Consortium at the Appalachia Education Laboratory, Charleston, W.Va. and is beingdistributed at cost by the Virginia Space Grant Consortium.*

NetParents, continued from page 2

Netparents and Netteachers have discovered that they have much to learn from one another and by working together can also advance new paradigms of learning and teaching that they seem to share.

It is perhaps not surprising that Netparents and Netteachers share some common characteristics and traits. Both groups are innovators and risk-takers by virtual of the fact they are early adapters of new technologies. The majority of both groups appear to share similar attitudes towards learning. Most seem to favor hands-on, constructionist learning and are more interested in knowledge-building learning opportunities than in the retention of knowledge for test purposes.

Internetworking offers an opportunity to bypass institutional barriers that have effectively isolated classrooms and classroom teachers from parents and the community and to open new external channels of communication that support new levels of understanding, mutual respect and cooperation.

Teachers and parents who are openly and honestly communicating with one another are less likely to fall victim to misunderstandings based on stereotype and mutual ignorance. They are also more likely to form a more healthy unified front in efforts to motivate individual students and to further institutional goals as well.

Netteachers are discovering new resources to be tapped and used in the classroom. Netparents representing various occupations and professions can often be persuaded to come to participate in classroom projects in person or remotely via the networks. Netparents are often willing to act as netmentors to other students or as resources to teachers as they create class projects on a variety of subjects.

The Challenge

The ultimate challenge to society is to encourage partnerships between parents and teachers, and to unite the "formal" and "informal" education process. Networking offers an effective way of bringing parents into schools and breaking down the barriers between schools and communities and it should be encouraged.

Netparents and Netteachers can illuminate new ways of interaction and demonstrate the need for more effective communication and interaction between parents and classroom teachers. Together, they can work to eradicate the divisions between "formal" and "informal" education and find ways to promote new schools of learning.

However, networking in itself is not the end but only the beginning. Networking can begin the dialogue that leads to effective changes in attitudes and policies but if attitudes and policies do not change then ultimately networking can result in further erosion of parental trust and regard of the institutional education process and further divisions in society between the technology haves and have nots.

The ultimate goal is restructuring and the creation of information age schools that encourage parents to be active participants in the learning and teaching process and co-partners with teachers in the critical decision-making processes.

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages*.

NetTEACH NEWS is published ten times a year.

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The Vocation of Global Citizen

by Kathy Rutkowski

A vocation is defined in the dictionary as a calling. As such a vocation is viewed as something more than a mere profession, occupation, or job. It is rather a philosophy of life and an acceptance of a worldly mission.

Most commonly, the term is used in reference to religious careers —priests, nuns, rabbis, ministers, and missionaries, but it is also sometimes used in reference to physicians and teachers. Thus, vocation is somewhat viewed as a selfless mission or at least one that involves helping others—healing their souls, healing their bodies, or nurturing their minds.

Most of us, as youngsters dream of careers that are interesting and productive but as adults settle for jobs that pay well or have good benefits. Rarely in this day and age do youngsters dream of vocations. The ranks of priests are dwindling, teachers are not revered as once they were, and most people are not willing to commit to the the long years and long hours it takes to become a physician. Vocations require a subservience, a sacrifice, and a level of life commitment that few are willing to make.

It has become an age when it is fashionable to sample rather than eat. We've become restless, insatiable, unfocused and non-committal. Life is no more complex now then it was generations ago and yet we use complexity as an excuse for our own personal and societal inertia.

Now more than ever there is a need for adults around the globe to articulate the desirability of vocation and to invite new generations to see the world not as a complex, inpenetrable, unsolveable mess but rather as a world of beautiful simplicity and unlimited possibility.

Our youth are no different than we or other earlier generations were. They need direction, they need hope, and they need empowerment. I suggest they also need to understand that a vocation is not for someone else but rather is something that each and every one could and should have. We need to facilitate their individual and our collective acceptance of vocation.

The Promise of Global Networks

One potential of global networks that is rarely articulated is their utility in faciliating the discovery, acceptance, and fulfillment of vocation. Global networks give individuals the power to reach into themselves and find the ability to help others. In particular, the Internet seems to promote the value systems of a simpler time when everybody knew each other and accepted a degree of responsibility for every one else's well-being.

There are so many examples of how networks are introducing the youth of this age to constructive ways of helping others. There are major programs such as I*Earn, The Chatback Foundation, The Planet and Globe Projects that provide students with real world missions. There are also

(*See* **Global Citizens** *p. 2*)

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13102 Weather Vane Way, Herndon, VA 22071 <info@netteach chaos com> tel +1 703-471-0593 ISSN 1070-2954

Global Citizens *continued from p.1*

innumerous but powerful individual efforts to help students to find themselves and a real and meaniingful purpose in their lives.

One of the expressed goals of the I*EARN Network is "to demonstrate that elementary and secondary students can make a meaningful contribution to the health and welfare of people and the planet. We want to see students go beyond simply being "pen-pals" to use telecommunications in joint student projects as part of the educational process."

I*EARN students have not just studied such significant issues as deforestation, AIDS, disaster relief, the plight of refugees, teen violence but have used their own intellectual and soul capacity to seek solutions. What a powerful force the youth of the world can be when given such opportunity and freedom. What a powerful example I*EARN offers us all who are now in positions of making decisions as to how we can best use this new technology in education.

There are less major undertakings but no less notable made by individual teachers or groups of teachers who post their empowering projects on Kidsphere in search of global partners. There are so many hundreds of individuals from all professions and from virtually every country in the world who have displayed a selflish commitment to others by simply answering questions that appear in listservs, entering in discussions on newsgroups, or agreeing to moderate listservs or act as telementors to learners around the globe.

Last year a detective in New York City offered his time to spend answering the questions of children about what it's like to be a detective and try to stop the senseless violence in our urban centers. There is Paul Smith, an Australian scientist stationned in Antarctica, who last time took time to answer the questions of students from around the globe and also sents his first-hand accounts of life in Antarctica.

This is powerful stuff and these people—you— who are now pioneering this medium not as a technological frontier but as a global society of responsible global citizens are demonstrating a new vocation—the vocation of global citizen.

A Time For Unity

There is a need for Netteachers around the globe to articulate some common vision and common goals. Global collaboration and cooperation should be encouraged and wherever possible supported. We need to reach beyond our school buildings, our school districts, our states, and our nations to a global world, indeed our global neighborhood.

We need to work together on a global basis to redefine education, learning, assessment, and teaching. We need to devise a new economics for education that supports global villages of learners. The established education systems worldwide will not change themselves. It will be people like you will change the system but only if you can work together and find a common voice. Those that resist change are entrenched and will encourage divison.

A Challenge

Recently, John Schwartz, a staff writer for the Washington Post, attempted to answer the question, "Does the media hate the Internet?" He suggested that the press is not necessarily antagonistic to the online world but rather that there is a need for the onliners to "educate lawmakers and journalists and spur them to do better."

I challenge all of you to become proactive. Work together with other networking pioneers to educate not just reporters and politicians but entire communities and nations around the world.

This is your time, your place, and it is your vocation to use the technology to liberate all learners and all teachers and all people who care about simple things like making this world a better place. You can do it, one message, one person, and one day at a time. It need not consume your life and all your energy but it does necessitate a lifelong commitment.

Networks offer the opportunity for global citizens of the world to unite and find therein a lifelong vocation.

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I*EARN's First Annual Teachers' Conference

by Dr. Edwin H. Gragert and Ellen LaFontaine

Argentina was the setting of the first annual I*EARN (International Education resource Network) Teachers Conference. One hundred and twenty I*EARN teachers, coordinators, and observers from 11 different countries met in Puerto Madryn and Buenos Aires from July 6 to 15, 1994. The conference was underwritten by a grant from the Argentine Ministry of Education.

I*EARN is a global telecommunications network in use at over 400 elementary and secondary school sites in 23 countries. Beginning this month, I*EARN will be expanded to include schools and youth groups anywhere in the world. Through the network, students and teachers communicate via e-mail, on-line conferencing, video-speaker telephones, and student exchanges to implement educational projects. Students and teachers gain experience with the Internet, cross-cultural communications skills and awareness, as well as an enhanced motivation for learning about their world.

The theme of this year's I*EARN Teachers Conference was "Different and Complementary." Since most of the teachers participating on the I*EARN network live in different countries, follow different cultural traditions, and speak different languages, the conferences highlighted the importance of cross-cultural classroom projects. These projects, designed by teachers and students themselves, facilitate the learning of other cultures and encourage active group oarticipation in improving the social and environmental conditions of the planet and its people.

Daniel Reyes, I*EARN Argentine Center Coordinator and organizer of the conference, stated, "No one person knows so much nor so little that he cannot benefit from collaboration. Harmony can best be attained by emphasizing the group, rather than the individual." He added further that the "challenge is to maje the network beat, to be alive, to feel, to act, to have a heart at each computer terminal and to let the spirit flow along the cables as we saw it flow in the I*EARN Teachers Conference."

The first part of the conference was held in Puerto Madyrn at the Patagonian National Center. Teachers and coordinators shared their successful project ideas used in classrooms around the world. Some of the presentation topics were: Transforming Traditional Education Through Telecommunications, New Teacher-Student Relationships, and Designing Interactive and Collaborative Curriculum Projects.

Participants felt the conference was an overwhelmingly positive educational experience. Bill Coppinger, a high school teacher from Australia, said "Teachers returned to their countries with the strength of knowing and understanding what it means to be part of a global community of educators working in concert to empower the youth of thr world and to improve the health and welfare of the people and the planet."

The conference provided an opportunity for many teachers who have communicated on-line with each other for years to meet in person for the first time. They were able to discuss and compare results of various projects undertaken with different school populations." As a result of these discussions, several projects were created. One new online conference (Newsgroup) was suggested that will be operational this month called <iearn.latina>. learn.latina will explore and facilitate project work in languages that are Latin-based (Spanish, Portuguese, Catalan, Italian, etc.).

The conference culminated in Buenos Aires at the San Martin Cultural Center. The Argentine Ministry of Education invited teachers and coordinators to share their experiences with telecommunications in the classroom. In October 1993, the Ministry of Education and I*EARN signed a formal Cooperative Agreement that articulated an action plan to promote Educational Telematics throughout the Argentine education system.

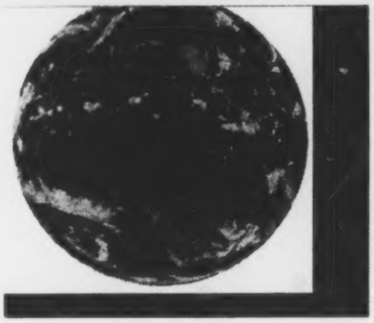
The Argentine Ministry has cited the I*EARN network as an exemplary model for telecommunication porojects in Argentina. Currently plans are underway to link five hundred secondary schools to the I*EARN network by the end of this year. A second stage of implementation will focus on linking an additional nine hundred primary and secondary schools to I*EARN by 1996.

Future I*EARN Teacher Conferences and Student Meetings are being planned. Russia, China and Australia have been named as possible sites.

For further information about I*EARN and the Copen Family Fund—the foundation which sponsored the creation of the I*EARN pilot project in 1990 and is now helping to launch a new open network—contact:

Dr. Edwin H. Gragert
Director
I*EARN
345 Kear Street, Suite 200
Yorktown Heights, NY 10598
tel: +1 914 962-5864

Exploring Technology Through Images
by Stephanie Stevenson



"Look, Mrs. Stevenson! It's an image of the Yucatan peninsula coming in upside down!," several of my students yelled with excitement as a weather satellite image scrolled onto the screen of our weather satellite computer station. I knew there had been breakthroughs in continent recognition. Previously my students had difficulty locating Florida on a map before I installed my weather imaging computer in my classroom. After the weather satellite images became a part of classroom life, I noticed a new awareness developing in eager young minds

"Hey, Mrs. Stevenson, there's a hurricane here that we have not heard of! I think there's a plot from the National Weather Service to keep it from us!", exclaimed Ben, a fifth grade student who was in charge of the Holley-Navarre ITV Morning Show Weather. He came to my classroom each day for the image of the day. On this particular day while looking at the images we received, he found what appeared to be a hurricane in one of the pictures. After assuring him that the national weather service would not suppress hurricane information, I went over to look and sure enough there was a hurricane. Looking more carefully to distinguish its location, we discovered it was in the Pacific. Taking a quick trip to the FIRN Internet Menu we chose to go to the University of Michigan's Internet Weather Underground, we looked up hurricanes and yes, there it was a Pacific hurricane that had not been in the news. Ben joyfully left the classroom to tell about the hurricane he discovered.

I tried a variety of approaches for learning how to motivate students frustrated with school. Integrating mathematics, science, and technology using satellite imagery, scientific visualization, and Internet communications is an exciting way to stimulate student interest and to promote critical thinking and problem solving skills. Teaching and learning has changed radically since computer technology has become an integral part of the classroom.

The introduction of a Florida EXPLORES! receiving station for weather satellite images has absolutely changed student attitudes and interest in what school has to offer. The Florida EXPLORES! program is the visionary project of Dr. Paul Ruscher and Dr. Kevin Kloesel of the Department of Meteorology at Florida State University. Dr. Ruscher states that the Florida EXPLORES! (EXPloring and Learning the Operations and Resources of Environmental Satellites!) project was implemented in celebration of the International Space Year (ISY), 1992, with funding from the Florida Technological Research and Development Authority (TRDA) and the Florida Department of Education (DOE). The goals of this project include making weather satellite information available to Florida's public schools in order to enhance awareness and knowledge of resources in the space and earth sciences and to encourage students to pursue careers in the sciences and mathematics through participation in research. Not only does the EXPLORES! program provide the hardware and continued training, but also daily weather data is supplied in several formats. We receive via our FIRN e-mail special weather information like this:

"78W/79W...AND 89W/90W. THEY WERE MOVING WESTWARD AT 10-15 KNOTS.

INTERPRETATION OF SATELLITE IMAGERY THROUGH 26/1101 UTC...

GULF OF MEXICO...MESOSCALE FEATURES... SCATTERED SHOWERS AND THUNDERSTORMS WERE OBSERVED WITHIN 1-2 DEGREES OF A 26N83W 27N84W 29N86W LINE. A CLUSTER OF SHOWERS AND THUNDERSTORMS WAS SEEN WITHIN A 1 DEGREE RADIUS OF 25N84W. SCATTERED/ BROKEN LOW AND MID LEVEL CLOUDS WITHIN ISOLATED SHOWERS AND THUNDERSTORMS DOTTED THE REMAINDER OF THE GULF. ISOLATED SHOWERS WERE LOCATED OVER THE FLORIDA STRAITS.".

We get a daily report of the high and low temperatures and precipitation of the past 24 hour period from the National Weather service in Melbourne. An offshoot of this is the Florida State Weather Network, FSWN, developed by Bill Jordan at DOE. Students across the state collect the maximum and minimum temperatures and precipitation using the maximim and minimum thermometer and rain gauge provided by FSWN and then call in their data to a special phone line for data collection. An afternoon posting of the student generated data on FIRN is in the same format as the National Weather Service posting. Students begin to use skills that are necessary for the workplace as they learn about their environment.

Newly developed scientific visualization tools used in many technological occupations provoke lots of inquiry and research from students. The question, "What is the largest volcano in the solar system?" sent students in search of information . In this way we began an integrated unit using technology and all areas of the curriculum.

(See, **IMAGES** on page 22)

IBM NETWORKING SITE

IBM Networking announces the availability of networking information on networking.raleigh.ibm.com, an ftp site. At this site you will find free information on:

☞ **Networking Protocols:** Technical guidance, education, and customer case studies are highlighted, with a focus on APPN, APPC, and CMIP. Current and back issues of The APPC Connection, a newsletter distributed in 82 countries in hardcopy, are provided. CMIP Run!, a quarterly newsletter on network management, is available. Technical specifications and free networking applications are provided; information on the APPC Application Suite is available.

☞ **Networking Standards:** Technical information on a wide variety of networking-related standards is available. Working groups such as the CIW (CPI-C Implementer's Workshop), and the AIW (Application Implementer's Workshop) are highlighted.

☞ **Networking News:** Press releases, product announcements, and availability of the latest technical papers are provided.

To connect, ftp to **<networking.raleigh.ibm.com>**

Requests for more information or feedback on the site should be addressed to **<nsinfo@vnet.ibm.com>**

AECT Creates a New Division for Systemic Restructuring

The Association for Educational Communications and Technology has formed a new division, called the Division for Systemic Change in Education. The purpose of the CHANGE Division is to serve those who are interested in systemic change in education in a wide variety of settings, including public and private schools, businesses, higher education, and technical institutes. The founders believe that systemic change is necessary in all kinds of educational settings, for meeting learners' needs and for dramatically improving the quality of education.

The Systemic Change Division, which is made up primarily of teachers, educational policy makers, administrators, and change consultants and researchers, offers a variety of services to its members, including newsletter (available in electronic and/or print format), a directory of institutions involved in systemic change to help you to find others close to you geographically or programatically, a clearinghouse of resources and information on systemic change, and the annual AECT Conference, at which the Division provides workshops, presentations, informal meetings and discussions, and demonstrations of resources and tools to help in a systemic change effort.

For more information about the Systemic Change Division, contact its president, Charles M. Reigeluth (Education 2276, Indiana University, Bloomington, IN 47405 Phone: 812-856-8464 Internet: reigelut@indiana.edu) or its president-elect, Alison A. Carr (School of Education, Western Michigan University, Kalamazoo, MI 49008 Tel: 616-387-3835 E-Mail: carr@gw.wmich.edu).

To apply for membership, contact: AECT, 1025 Vermont Ave., NW, Suite 820, Washington, DC 20005 Phone: 202-347-7834.

The NITEC -- Fall Training Catalog Now Available

The NYSERNet Internet Training and Education Center (NITEC) is offering a full schedule of seminars and workshops for beginning, intermediate, and advanced Internet users.

FALL SEMINAR SAMPLER
For New Internet Users:
- -- Locating and Using Internet Information Resources
- -- Tourist UNIX
- -- We the People: Accessing Government Information
- -- Integrating the Internet into Your Curriculum

For More Advanced Users:
- -- Building an Internet Information Server: Gopher
- -- Building an Internet Information Server: WWW
- -- Conquering Client/Server Computing
- -- Understanding LANs and WANs

The NITEC classroom, which is located in Syracuse, New York is a state-of the-art facility that seats 24 students for lectures or smaller groups for hands-on training. NITEC supports both Macintosh and DOS/Windows computers. NITEC students work with the latest Internet client software and resources in an environment conducive to learning and retention. The center also provides technical training for systems administrators, primarily in UNIX. NITEC has assembled a knowledgeable team of instructors and curriculum-specific consultants and educators.

FOR A NITEC CATALOG
U.S. MAIL
Send your name, address and zip code to:
NYSERNet/NITEC
Suite 103, 200 Elwood Davis Road, Liverpool, NY 13088-6147
or request via E-Mail to training@nysernet.org.

GOPHER (nysernet.org 70)
/NYSERNet Internet Training & Education Center (NITEC)/Fall 1994

Course Abstracts - NEW
WORLD WIDE WEB
http://nysernet.org/nitec.info/fall.94.html

INFOBYTES

CURRICULAR ADDITION TO THE COSN GOPHER

A set of draft outcomes entitled-Curricular Outcomes for Projects:How the Internet can Enhance Learning Enviroments are now available on the CoSN Gopher.

The following outline of outcomes for the Curriculum areas of Language Arts, Mathematics, Science and Social Studies are the result of the ongoing work of scores of teachers in the Princeton Regional Schools. This set of draft outcomes is provided as a point of departure for online discovery of activities and projects which use Internet resources to enhance the learning environment for students.

In the directories below this one, specific examples will be listed for each outcome, as they are identified over the coming months by global members of our virtual community.

The general pointer is:

```
#
Type=1+
Name=Growing Curriculum
Path=1/CoSN Activities/COSNDISC/CoSNDISC Top-
ics/Growing Curriculum
Host=digital.cosn.org
Port=70
URL: gopher://digital.cosn.org:70/11/CoSN Activi-
ties/COSNDISC/CoSNDISC Topics/Gr
owing Curriculum
```

The area is organized as follows:

```
                Growing Curriculum

--> 1. About this area
    2. Desired Outcomes
    3. CompCurr.GIF <Picture>
    4. Interdisciplinary/
    5. Language Arts/
    6. Mathematics/
    7. Sciences/
    8. Social Studies/
```

Specific Pointers for the current items are:

```
#
Type=0+
Name=Hillside Elementary Internet Research Project
Path=0/CoSN Activi-
ties/COSNDISC/CoSNDISC Top-
ics/Growing Curricu-
lum/Interdiscipli
nary/Internet.research
Host=digital.cosn.org
Port=70
URL: go-
pher://digital.cosn.org:70/00/CoSN
Activities/COSNDISC/CoSNDISC Topics/Gr
owing Curriculum/Interdisciplinary/Internet.research

#
Type=0+
Name=NIH Image Lesson Plan (S. Stephenson)
Path=0/CoSN Activities/COSNDISC/CoSNDISC Top-
ics/Growing Curriculum/Mathematics/N
IH Image Lesson Plan (S. Stephenson)
Host=digital.cosn.org
Port=70
URL: gopher://digital.cosn.org:70/00/CoSN Activi-
ties/COSNDISC/CoSNDISC Topics/Gr
owing Curriculum/Mathematics/NIH Image Lesson Plan
(S. Stephenson)

#
Type=0+
Name=DESERT Project
Path=0/CoSN Activities/COSNDISC/CoSNDISC Top-
ics/Growing Curriculum/Sciences/DESE
RT Project
Host=digital.cosn.org
Port=70
URL: gopher://digital.cosn.org:70/00/CoSN Activi-
ties/COSNDISC/CoSNDISC Topics/Gr
owing Curriculum/Sciences/DESERT Project

#
Type=0+
Name=Florida EXPLORES
Path=0/CoSN Activities/COSNDISC/CoSNDISC Top-
ics/Growing Curriculum/Sciences/Flor
ida EXPLORES
Host=digital.cosn.org
Port=70
URL: gopher://digital.cosn.org:70/00/CoSN Activi-
ties/COSNDISC/CoSNDISC Topics/Gr
owing Curriculum/Sciences/Florida EXPLORES
```

More will be added as it's received.

(Editor's Note: The COSN Gopher is maintained by Ferdi Serim,Princeton Regional Schools. Ferdi has done an excellent job in bringing together all sorts of useful information for Educators. Take a look at this latest addition, it will be quite helpful to you. KMR)

MOSAIC-L - Mosaic Users and Developers List

MOSAIC-L offers a forum to communicate with those who use and develop NCSA Mosaic applications. The list is intended for Mosaic users and developers.

To subscribe send a message to either:

listserv@uicvm.bitnet or
listserv@uicvm.uic.edu

In the first line of the message (not in the subject) enter the following:

SUBSCRIBE MOSAIC-L Your Name

EFLIST - Educational Forum

The EFLIST is for advocating for the educational process and the environment. Our ranks currently include teachers, educators, administrators, students, activists and parents.

To join the mailing list send an Internet e-mail message addressed to:

eflist-request@htbbs.com

Leave the SUBJECT field blank and then place ONE of the following key words in the body of your message:

JOIN ADD SUBSCRIBE

New messages or replies should be sent to the following address:

eflist@htbbs.com

President & Owner: jose.venegas@htbbs.com
Technology Director: manny.gonzalez@htbbs.com
Projects Director: michelle.martin@htbbs.com

The Roadmap for the Information Superhighway Interactive Internet Training Workshop Is Free

The entire Roadmap workshop is offered free on the ROADMAP list.** (**NOTE: ROADMAP is a distribution list, not a discussion list).

The Roadmap workshop sessions will cover: E-mail; Listservs, Majordomo, Listproc and other distribution systems; Usenet; FTP; Archie; Gopher; Veronica; Address Searches; WAIS; WWW; and many other topics. As a number of ROADMAP subscribers only have e-mail access, the Roadmap workshop will also teach how to access many Internet tools (FTP, Archie, Gopher, etc.) using E-mail.

The first Roadmap for the Information Superhighway workshop will begin in OCTOBER 1994. To subscribe, please send an e-mail message to:

LISTSERV@UA1VM.UA.EDU

Leave the subject field blank and in the main body of your message write:

SUB ROADMAP yourfirstname yourlastname

INTERACTIVE TELEVISION LISTSERV

I-TV is an unmoderated Internet distribution list for the discussion of Two-way Interactive Television and its use in education and community development. The list is also used to disseminate information and text files related to these topics.

To subscribe to I-TV, please send a message to:

LISTSERV@KNOWLEDGEWORK.COM

Leave the subject field blank and in the main body of your message write:

SUB I-TV yourfirstname yourlastname

MEMO-NET

The Minnesota Educational Media Organization (MEMO) administers an unmoderated LISTSERV discussion group for library/media and technologyprofessionals, and interested parties.

To subscribe to the MEMO-net list send an e-mail message to:

listserv@VAX1.MANKATO.MSUS.EDU

Leave the subject line blank and in the main body of the message write:

The Globe Project

The GLOBE (The Global Observations to Benefit the Environment) program was first announced by U.S. Vice President Albert Gore on Earth Day, April 22, 1994.

The GLOBE program aims to to bring together school children, educators and scientists together to monitor the worldwide environment. Students in grades Kindergarten through garde 12 or equivalent grades at schools throughout the world will conduct scientific experiments. Student environmental observations will be transmitted through the Internet and direct staellite communications to a central processing site, at which global environmental images will be created and relayed back to the students. The data acquired by the students will also be made available through the Internet to environmental scientists throughout the world to support their research.

GLOBE will begin operation in a number of schools throughout the world on April 22, 1995, the 25th Earth Day. Over 200 schools, at least 50 of which will be in the U.S., will participate in the initial GLOBE implementation. Over 40 countries have already expressed interest in becoming involved. Ultimately, thousands of schools are expected to participate in the program.

The objectives of the GLOBE Program are:

- to enhance the collective awareness of individuals throughout the world concerning the environment.
- to increase scientific understanding of the Earth
- to help ALL students reach higher standards in science and mathematics education.

Scientists are involved in the design and implementation of the GLOBE program and will determine what types of measurements students are most capable of making and where students can make the greatest contribution.

The data acquired by the students are expected to be useful in the understanding of earth systems by students and environmental researchers in a wide range of fields. The student data will be quality-controlled during GLOBE processing prior to their use in producing environmental images and publicly available data..

Over 90% of the long term GLOBE expenditures are expected to be funded by foreign governments and non-government sources in the U.S. and abroad. Foreign governments will pay for their own country's participation to the extent they are able. A non-profit organization will be the focal point for U.S. private sector contributions for GLOBE.

The GLOBE program is managed by an US interganeyc team that includes National Oceanic Atmospheric Administration (NOAA), National Aeronautics and Space Administration (NASA), Environmental Protection Agency (EPA), the National Science Foundstion, and the Departments of Education and State.

For further information contact:
The GLOBE Program
744 Jackson Place
Washington, DC 20503
telephone +1-202-395-7600
fax: +1-202-395-7611
e-mail: info@globe.gov

The Doomed Train

DATE:APRIL - MAY 1995

PURPOSE:The students will learn to write a persuasive paper and a rebuttal to and student on the Internet who has the opposite view.

GRADE LEVEL: 9 TH GRADE

Since our CORE team has the same 120 students, we often integrate our lessons to show them that what they learn in one class can be used in another. Each one of the CORE teachers presents his/her part of the lesson when the students are in his/her class. In their English class they have to put everything that they learned in the other classes into a short story. For the telecommunications part of this lesson, we plan to ask our students to write a persuasive essay that addresses the question "Should Bosnia-Hersegovina remain a confederation or be divided into Croat, Muslim and Serb sections?" The English classes will be divided up into six or seven teams consisting of four heterogenously grouped students. Each team will be asked to select an ethnic group and take a side on this question and present their arguments. Thus, we will have one Croat group arguing for a confederation and another Croat group arguing for separation. The same will go for the other two ethnic groups so that each team will be different. We plan to put this lesson and question on the Internet and call for participation. The classes from around the world can select any of our teams to challenge. Through E-mail the students can exchange papers and offer rebuttals.

For more information contact:
Project Coordinator: Francis Achiu
Moanalua High School
2825 Ala Ilima St.
Honolulu, Hawaii 96818
tel: +1 808-833-1836
e-mail:
<francisa@kalama.doe.hawaii.edu>

Knowledge Building Map of the Internet
by Kathy Rutkowski

Recently, the magazine PC Computing published the first "Road Map to the Internet."** I opened the map and at first glance it looked like a bunch of neurons in somebody's magnified brain cell. On closer perusal, I realized those neurons were depicting servers scattered around the world. Clearly, this map was not written for the likes of me who navigate by instinct and not instruments. Of course, sometimes that means it takes me longer to get from A to B but that begs a very important question, is speed and shortest distance important if what you are looking for is knowledge?

Education, is first and foremost a knowledge building process. It takes time to be curious, to seek answers, to follow new information leads, to consider the meaning of information, to share information, and finally to synthesize, create, and produce a knowledge product. The search for knowledge is not a race, has no success formula, and is best achieved through communications, collaboration, and cooperation.

No matter the grade level or age of the learner, the Internet offers ready access to signficant knowledge building tools and capabilities. Essentially, the Internet is a global intelligence community and as such it offers all learners ACCESS to information in a raw and unprocessed form as well as in an enhanced form from around the globe, the means to PROCESS and EVALUATE the information, and finally the means to disseminate and publish the knowledge gained.

What is most important to learners is "why and how" to use information and what is most important to teachers is to nurture such knowledge-building skills and capabilities.

The Internet should not be considered as a teaching tool but as a teaching space that learners can come in and out of, and can learn from outside as well as inside.

Older students can spend greater periods of time "on-line" as journeyman, and indeed in some cases as master knowledge-builders, but younger children as apprentice knowledge builders require more assistance in acquiring critical research skills and attitudes.

The Internet allows educators and learners to customize the knowledge building process. It also offers access to more timely and current information as well as information from more varied sources and perspectives. Finally it offers even the youngest of learners the ability to disseminate knowledge gained to a broad audience of potential users with rapid response.

As educators design ways to use the Internet it is important to understand that the most important maps are those that the teacher and learner create together in the process of building knowledge.

**PC Computing, Sept. 1994

Stages of Knowledge-Building

EXPLORATION

Learners and researchers need time to explore areas of interest in search of questions and learners in particular need to understand to focus their curiosity.

COLLECTION

Once questions are posed, learners must learn to acquire relevant basic information. This process involves developing criteria for collection, cultivating sources, and determining the reliability of sources.

PROCESSING

To be useful information must be processed—gathered, indexed, sorted, stored, and retrieved. This sometimes involves translation and a preliminary evaluation and interpretation.

ANALYSIS

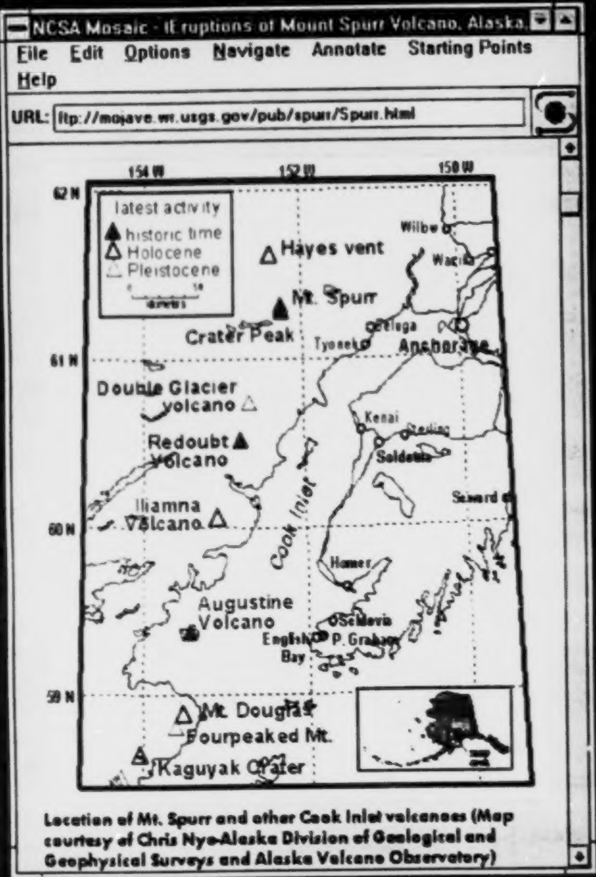
Analysis is the stage at which information is assembled and the collective sets evaluated, interpreted, and used to create a new original body of knowledge for a definitive purpose.

PRODUCTION

Information and knowledge serve vital functions in society but only if that information and knowledge is disseminated to those with a need and interest. It must be packaged in a way that invites such people to use it, i.e. to comprehend it and legitimize its value.

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

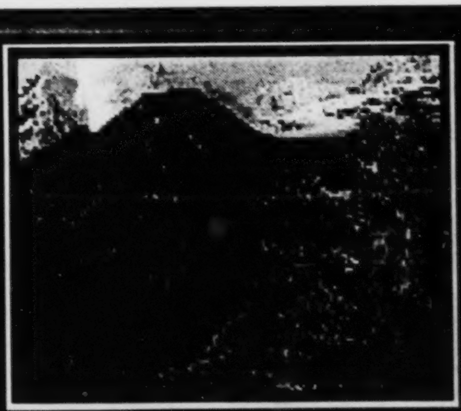
KNOWLEDGE-BUILDING IMAGES


NCSA Mosaic - (Eruptions of Mount Spurr Volcano, Alaska.)
File Edit Options Navigate Annotate Starting Points Help
URL: ftp://mojave.wr.usgs.gov/pub/spurr/Spurr.html
154 W
152 W
150 W
62 N
61 N
60 N
59 N
latest activity
historic time
Holocene
Pleistocene
Hayes vent
Mt. Spurr
Crater Peak
Wilbw
Wacilla
Tyonek
Beluga
Anchorage
Double Glacier volcano
Redoubt Volcano
Kenai
Sterling
Soldotna
Seward
Iliamna Volcano
Cook Inlet
Homer
Augustine Volcano
Seldovia
English Bay
P. Graham
Mt. Douglas
Fourpeaked Mt.
Kaguyak Crater

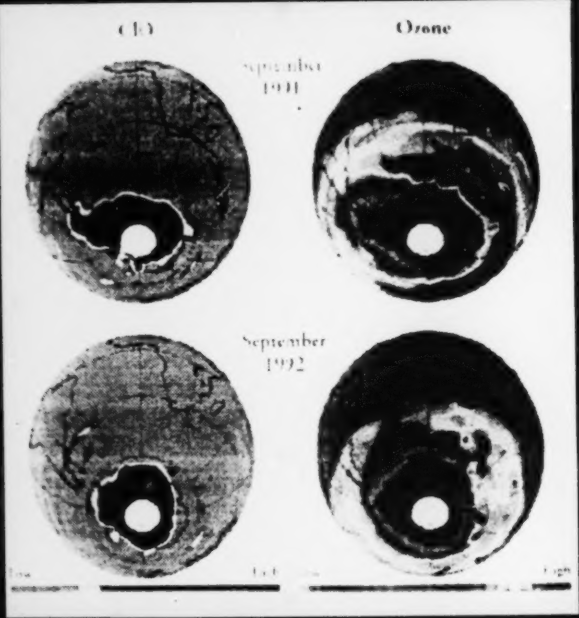
Location of Mt. Spurr and other Cook Inlet volcanoes (Map courtesy of Chris Nye-Alaska Division of Geological and Geophysical Surveys and Alaska Volcano Observatory)

LEFT: A MAP of the location of Mt. Spurr and other Cook Inlet Volcanoes from Chris Nye-Alaska Division of Geological and Geophysical Surveys and Alaska Volcano Observatory. Found at URL: ftp://mojave.wr.usgs.gov/pub/spurr/Spurr.html

BELOW: PHOTOGRAPH of one of the 1992 Eruptions of Crater Peak, Spurr Volcano, Alaska URL: ftp://mojave.wr.usgs.gov/pub/spurr/Spurr.html



BELOW: VISUALIZATION IMAGERY available from the NASA's Jet Propulsion Laboratory. It is a 1993 Ozone Map looking at Antartica. URL: ftp://jplinfo.jpl.nasa.gov/public/jplinfo/html JPL 1993ozone map/Antartica


ClO
Ozone
September 1991
September 1992
Low
High
Low
High

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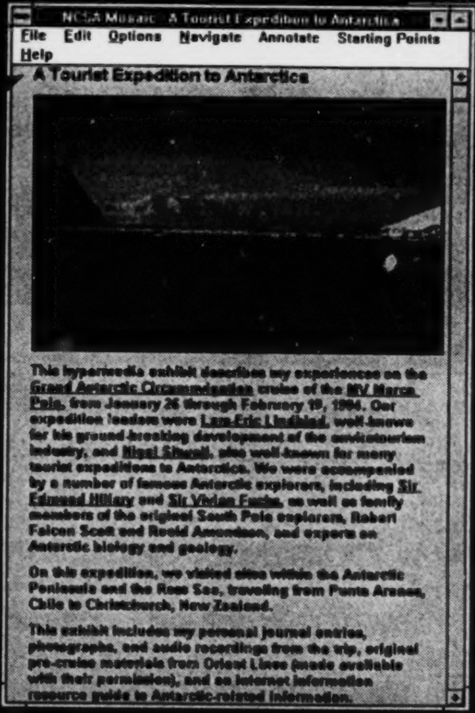
KNOWLEDGE-BUILDING: Information

FIRST HAND ACCOUNTS

SEE RIGHT: A Tourist Expedition to Antarctica
URL: http2.sils.umich.edu/Antarctica/story.html


NCSA Mosaic A Tourist Expedition to Antarctica
File Edit Options Navigate Annotate Starting Points Help

A Tourist Expedition to Antarctica

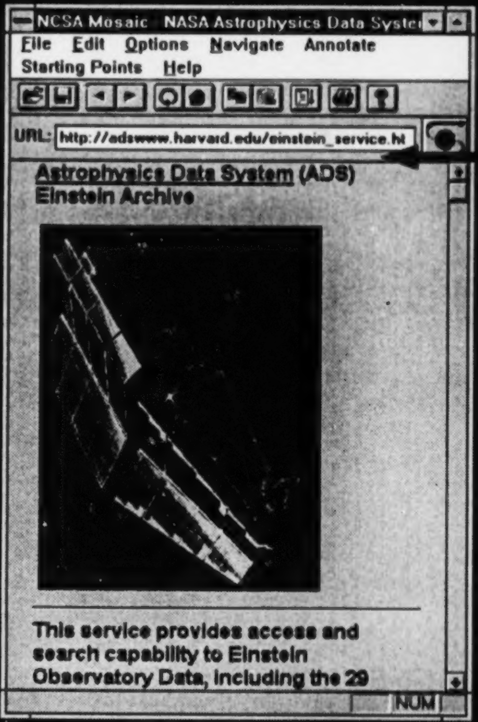
This hypermedia exhibit describes my experiences on the Grand Antarctic Circumnavigation cruise of the MV Marco Polo, from January 26 through February 19, 1994. Our expedition leaders were Lars-Eric Lindblad, well-known for his ground-breaking development of the adventure tourism industry, and Nigel Sitwell, also well-known for many tourist expeditions to Antarctica. We were accompanied by a number of famous Antarctic explorers, including Sir Edmund Hillary and Sir Vivian Fuchs, as well as family members of the original South Pole explorers, Robert Falcon Scott and Roald Amundsen, and experts on Antarctic biology and geology.

On this expedition, we visited sites within the Antarctic Peninsula and the Ross Sea, traveling from Punta Arenas, Chile to Christchurch, New Zealand.

This exhibit includes my personal journal entries, photographs, and audio recordings from the trip, original pre-cruise materials from Orient Lines (made available with their permission), and an Internet information resource guide to Antarctic-related information.

TABLE 1. COMPONENTS OF POPULATION GROWTH, UNITED STATES, 1800-1980.
(Rates per 1000 mid-[illegible]riod population per year)(a)

PERIOD	Average Population (000s)	RTI	CBR	CDR	RNI(b)	RNM(b)	RNM as % of RTI
1790-1800	4,520	30.08		2[illegible].49	3.59	11.9%	
1800-1810	6,132	31.04		26.8[illegible]	4.19	13.5%	
1810-1820	8,276	28.62		24.70	[illegible].92	13.7%	
1820-1830	11,031	28.88		26.93	1.9[illegible]	6.8%	


NCSA Mosaic NASA Astrophysics Data System
File Edit Options Navigate Annotate Starting Points Help
URL: http://adswww.harvard.edu/einstein_service.ht
NUM

Astrophysics Data System (ADS)
Einstein Archive

This service provides access and search capability to Einstein Observatory Data, including the 29

DATA SETS

Table of Components of Population Growth, US
Other Gophers/IO/Cliometric Society Economic History/Pop Growth US, 1800-1980

Astrophysics Data Systems Archive
URL: http://adswww.harvard.edu/einstein_service.ht

Climatic Data Summary for Washington DC for the Month of August. (From University of Michigan WEATHER UNDERGROUND)

```
CLIMATIC DATA SUMMARY FOR THE MONTH OF AUGUST 1994
NATIONAL WEATHER SERVICE WASHINGTON DC
800 AM EDT THU SEPTEMBER 1 1994
WASHINGTON NATIONAL AIRPORT...
TEMPERATURES...        DEPARTURE     NUMBER OF DAYS
WITH...
AVERAGE MAXIMUM   83.8 F MINUS 3.1      MAXIMUM OF 32 OR
BELOW...0
AVERAGE MINIMUM   67.1 F MINUS 2.9      MAXIMUM OF 90 OR
ABOVE...3
MONTHLY AVERAGE   75.5 F MINUS 3.0      MINIMUM OF 32 OR
BELOW...0
THE HIGHEST TEMPERATURE :  93 ON THE 14TH
```

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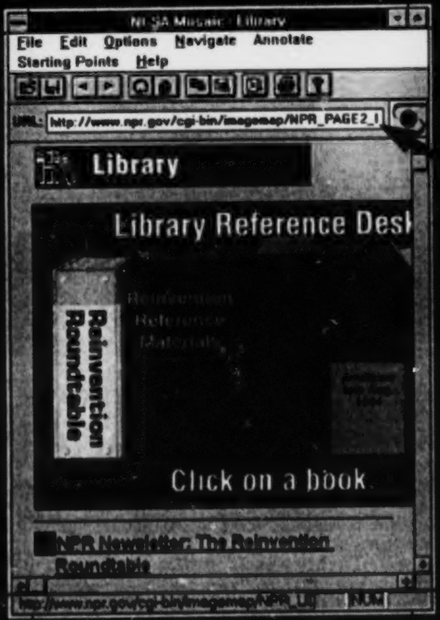
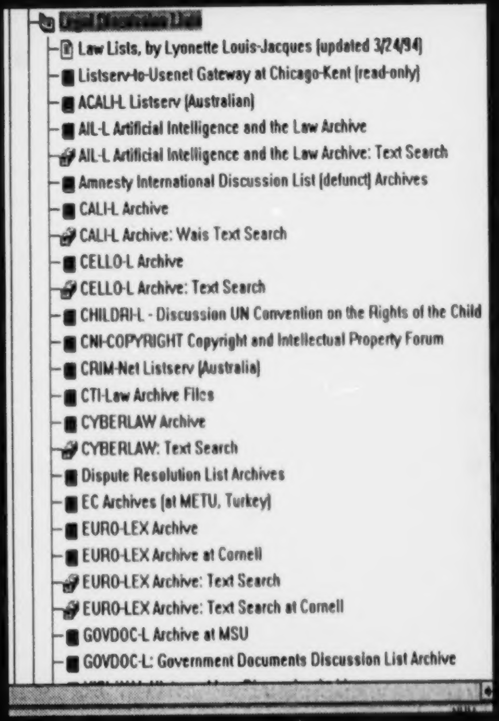
KNOWLEDGE-BUILDING: Reference


NCSA Mosaic - Library
File Edit Options Navigate Annotate
Starting Points Help
URL: http://www.npr.gov/cgi-bin/imagemap/NPR_PAGE2_I
Library
Library Reference Desk
Reinvention Roundtable
Reinvention Reference Materials
Click on a book
NPR Newsletter: The Reinvention Roundtable
NUM

NPR Library.
URL:http://www.npr.gov/NPR/html_NPR/email2.html

RACE TO SAVE THE PLANET: TEACHING MODULES examines major environmental questions using a case study approach. A teenage host, actress Anais Granofsky, introduces each segment. Through travels to every continent - from the Rhine River to the Amazonian rain forests, from the smog-filled streets of Los Angeles to the deforested land of Kenya - the producers of this series explore the human dimensions of international environmental issues. The series examines the delicate relationships of life on earth, and it defines the range of policy options that governments and citizens now face. It also provides the tools needed to understand the roots of modernization and to evaluate policies for creating a sustainable environmental future. Please consult the Education Services Director at your

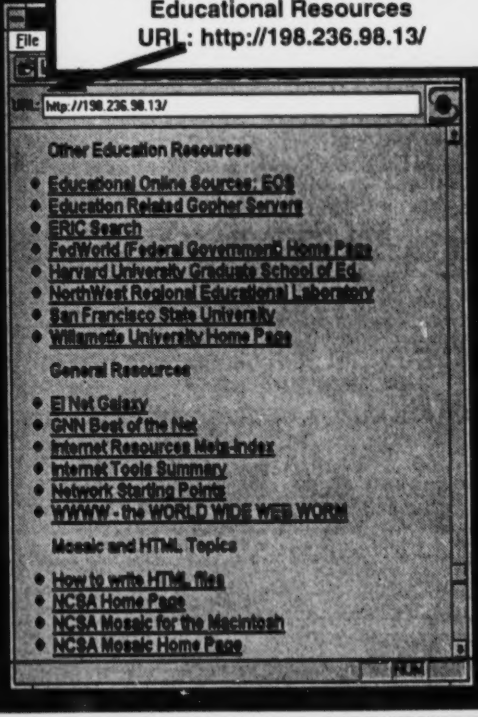
PBS Gopher
Other Gophers/North America/WashingtonDC/PBS



- Law Lists, by Lyonette Louis-Jacques [updated 3/24/94]
- Listserv-to-Usenet Gateway at Chicago-Kent [read-only]
- ACALH-L Listserv [Australian]
- AIL-L Artificial Intelligence and the Law Archive
- AIL-L Artificial Intelligence and the Law Archive: Text Search
- Amnesty International Discussion List [defunct] Archives
- CALI-L Archive
- CALI-L Archive: Wais Text Search
- CELLO-L Archive
- CELLO-L Archive: Text Search
- CHILDRI-L - Discussion UN Convention on the Rights of the Child
- CNI-COPYRIGHT Copyright and Intellectual Property Forum
- CRIM-Net Listserv [Australia]
- CTI-Law Archive Files
- CYBERLAW Archive
- CYBERLAW: Text Search
- Dispute Resolution List Archives
- EC Archives [at METU, Turkey]
- EURO-LEX Archive
- EURO-LEX Archive at Cornell
- EURO-LEX Archive: Text Search
- EURO-LEX Archive: Text Search at Cornell
- GOVDOC-L Archive at MSU
- GOVDOC-L: Government Documents Discussion List Archive

Legal Discussion Lists
Selector Path 1./.internet/.lists
Host: lawnest.uchicao.edu
Port: 70

Sam Barlow High School Other Educational Resources
URL: http://198.236.98.13/


File
URL: http://198.236.98.13/
NUM

Other Education Resources

- Educational Online Sources: EOS
- Education Related Gopher Servers
- ERIC Search
- FedWorld (Federal Government) Home Page
- Harvard University Graduate School of Ed.
- NorthWest Regional Educational Laboratory
- San Francisco State University
- Willamette University Home Page

General Resources

- EI Net Galaxy
- GNN Best of the Net
- Internet Resources Meta-Index
- Internet Tools Summary
- Network Starting Points
- WWWW - the WORLD WIDE WEB WORM

Mosaic and HTML Topics

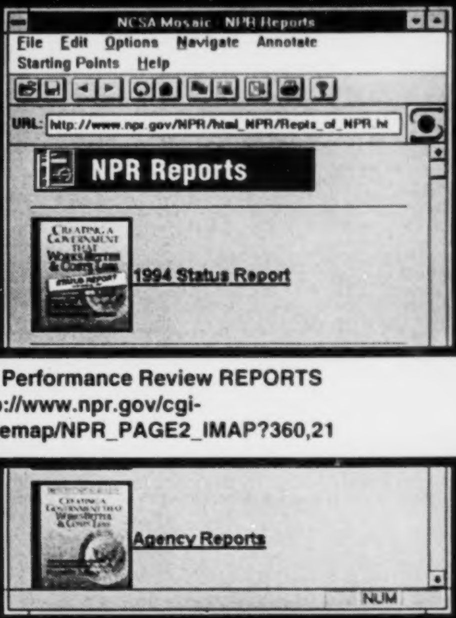
- How to write HTML files
- NCSA Home Page
- NCSA Mosaic for the Macintosh
- NCSA Mosaic Home Page

KNOWLEDGE-BUILDING: Enhanced Information

Ozone is a compound of three oxygen atoms, unlike oxygen in the air we breathe that contains two oxygen atoms. In the stratosphere, the atmospheric layer between six and 30 miles above Earth's surface, ozone forms a layer that shields the Earth against ultraviolet radiation from the sun. (It is important to note that whereas ozone in the stratosphere is absolutely necessary to protect the Earth, in the lower atmosphere - where it is a by-product of fossil fuel burning - ozone is a harmful air pollutant.) Recently, scientists have recorded a decline in stratospheric ozone levels. It is predicted that as the ozone layer thins, there will be an increase in cases of skin cancer and eye cataracts, crop damage and destruction of marine life.

Ozone depletion has been linked primarily to the use of chlorofluorocarbons (CFCs) and halons. CFCs are

A REPORT on Ozone Depletion by Fred Krupp, Executive Director of the Environmental Defense Fund and UVA EcoGopher. Follow Other Gopher and Information Servers/International Organizations/ EnviroGopher/EnviroIssues/Ozone Issues/Ozone Depletion/Ozone Facts


NCSA Mosaic - NPR Reports
File Edit Options Navigate Annotate
Starting Points Help
NUM

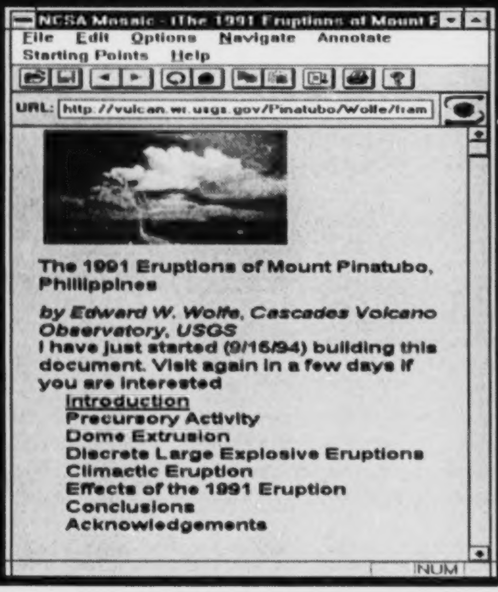
URL: http://www.npr.gov/NPR/html_NPR/Repts_of_NPR.ht

NPR Reports

1994 Status Report

Agency Reports

**National Performance Review REPORTS
URL:http://www.npr.gov/cgi-bin/imagemap/NPR_PAGE2_IMAP?360,21**


NCSA Mosaic - (The 1991 Eruptions of Mount P
File Edit Options Navigate Annotate
Starting Points Help
NUM

URL: http://vulcan.wr.usgs.gov/Pinatubo/Wolfe/fram

The 1991 Eruptions of Mount Pinatubo, Phillippines

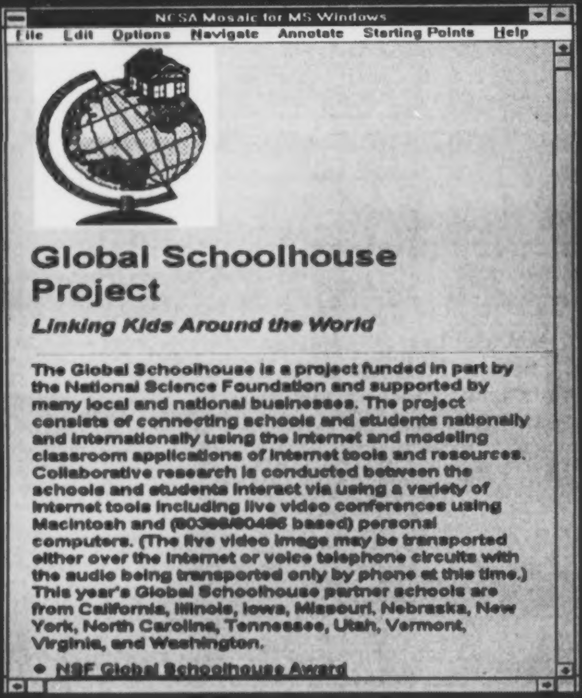
by Edward W. Wolfe, Cascades Volcano Observatory, USGS
I have just started (9/16/94) building this document. Visit again in a few days if you are interested

- Introduction
- Precursory Activity
- Dome Extrusion
- Discrete Large Explosive Eruptions
- Climactic Eruption
- Effects of the 1991 Eruption
- Conclusions
- Acknowledgements

**A Report on The 1991 Eruptions of Mount Pinatubo, Phillipines
by Edward Wolfe, Cascades Volcano Observatory
URL: http://vulcan.wr.usgs.gov/Pinatubo/Wolfe/framework.html**

Food production in Rwanda is hard hit by civil strife. Even before the outbreak of intensive civil strife last April, Rwanda's food deficit for 1994 was assessed at about 1 million tons, due to drought and population displacement following earlier conflicts. Given that a substantial portion of the second season crops may be lost due to harvesting problems and that the bulk of the third season crop has not yet been planted because of precarious security situation, the food deficit in 1994 will substantially exceed the 1 million tons estimated by the February 1994 FAO/WFP Mission. Such a massive food deficit, arising mainly due to reduced production of staple foodcrops (roots and tubers, bananas and beans), can be met only partially

**An FAO Highlight on the Food Situation in Rwanda
Other Gopher/IO/UN FAO/GIEWS/Food Situation in Africa/Highlights July 1994**



Global Schoolhouse Project

Linking Kids Around the World

The Global Schoolhouse is a project funded in part by the National Science Foundation and supported by many local and national businesses. The project consists of connecting schools and students nationally and internationally using the Internet and modeling classroom applications of Internet tools and resources. Collaborative research is conducted between the schools and students interact via using a variety of Internet tools including live video conferences using Macintosh and (80386/80486 based) personal computers. (The live video image may be transported either over the Internet or voice telephone circuits with the audio being transported only by phone at this time.) This year's Global Schoolhouse partner schools are from California, Illinois, Iowa, Missouri, Nebraska, New York, North Carolina, Tennessee, Utah, Vermont, Virginia, and Washington.

- NSF Global Schoolhouse Award

KNOWLEDGE-BUILDING: The Three C's

COMMUNICATIONS: ASK and you shall receive; GIVE and your will receive back tenfold. witnesses.

COOPERATION: Share Information, Observations, Intelligence

COLLABORATIONS: Work together to evaluate and analyze information, solve problems and find solutions.

Date: Sat, 3 Sep 1994 13:29:42 -0400
From: Donald Perkins <dperkins@tenet.edu>
To: Multiple recipients of list <ednet@nic.umass.edu>
Subject: Re: Technology Initiative - Let's Go

Mark, Bonnie, and Kathy have all kicked in on this thread of LETS JUST DO IT, and I can't hold off any longer. I was going to gather my thoughts, look through the messages, and work something up with a bit of care...but the strand is about the immediacy and the now and doing. ....I think all of us that are working to build up armadillo are pioneers. We are using a publishing mechanism that will allow us, teachers, students, administrators, and folks-with-a-cause, to grow a knowledge base. In a (I hate educational jargon, but ....) in a constructivist environment. This year we are working with Rice U on a new school (k8) that will have technology as a central working toolchest...we're starting off with 400 computers in a lovely LAN gated to the Internet to grow over the next year to over 1200 machines -- a dream school with great community support. My colleague, Siva Kumari, and I are going to go into the classroom with a couple of courses -- Publishing on the Internet and The Internet: Tools and Techniques. We'll be putting the courses online in the Armadillo WWW Server and we'll be teaching them to kids at remote sites as well as at the Rice School.

Date: Sat, 3 Sep 1994 11:10:32 -0400
Reply-To: ednet@nic.umass.edu
From: "Kathleen M. Rutkowski" <kmr@isoc.org>
Subject: Re: Technology Initiative - Let's Go

Mark and Bonnie,

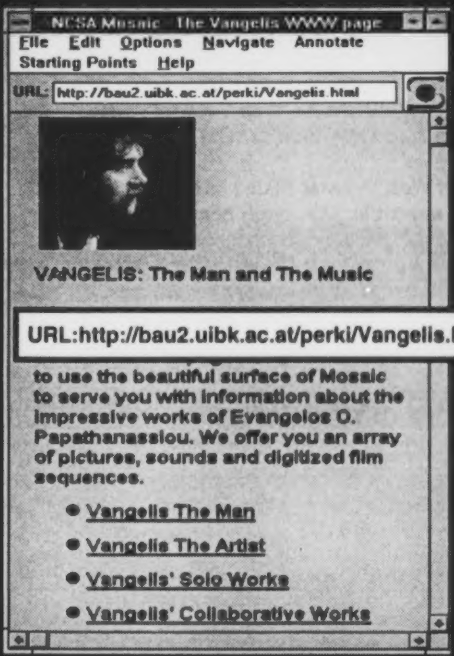
You are on your way--like the arrows that you yourself shoot off every day as teachers you too are the hope of the future and because of you and what you do, there is hope that we can change the system of public education and private education worldwide so that it is more responsive and is better focused on the learning industry.

Thanks for caring enough to make a difference. You are not alone and there are many other teachers out there lurking on this listserv or not yet on networks but the hope is that soon your voices will join together and nothing will stop you or keep you <sharpening pencils> --you will have all the tools you need to capture the imagination of all learners and to inspire them to create and to contribute.

Kathy

KNOWLEDGE-BUILDING: Putting it Together

PROCESS, PRODUCT, PUBLISH

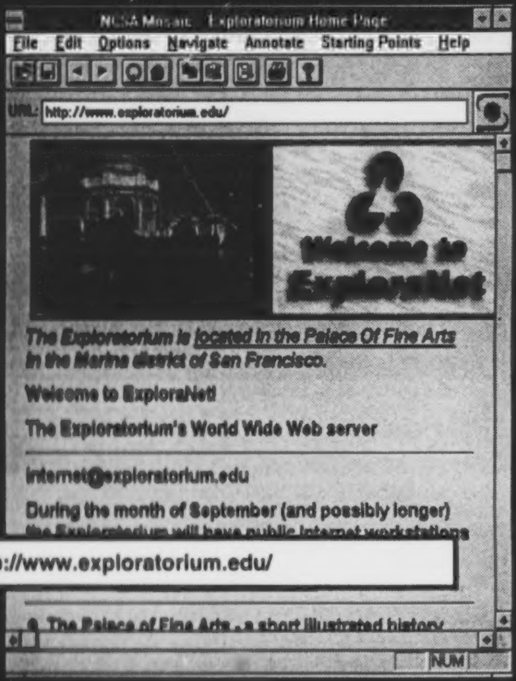

NCSA Mosaic - The Vangelis WWW page
File Edit Options Navigate Annotate
Starting Points Help
URL: http://bau2.uibk.ac.at/perki/Vangelis.html

VANGELIS: The Man and The Music

URL:http://bau2.uibk.ac.at/perki/Vangelis.html

to use the beautiful surface of Mosaic to serve you with information about the impressive works of Evangelos O. Papathanassiou. We offer you an array of pictures, sounds and digitized film sequences.

- Vangelis The Man
- Vangelis The Artist
- Vangelis' Solo Works
- Vangelis' Collaborative Works


NCSA Mosaic - Exploratorium Home Page
File Edit Options Navigate Annotate Starting Points Help
URL: http://www.exploratorium.edu/
Welcome to ExploraNet
NUM

The Exploratorium is located in the Palace Of Fine Arts in the Marina district of San Francisco.

Welcome to ExploraNet!

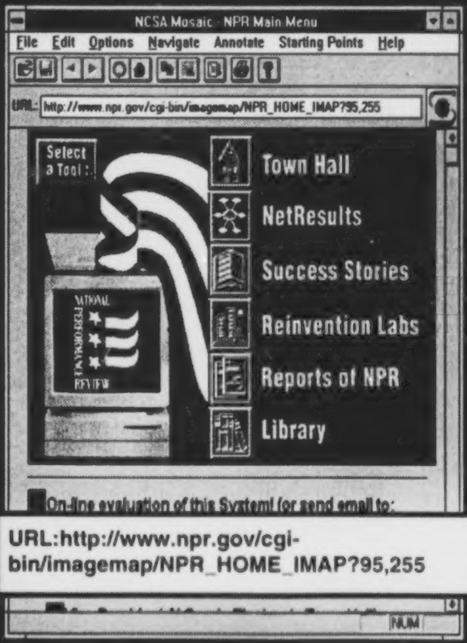
The Exploratorium's World Wide Web server

internet@exploratorium.edu

During the month of September (and possibly longer) the Exploratorium will have public internet workstations

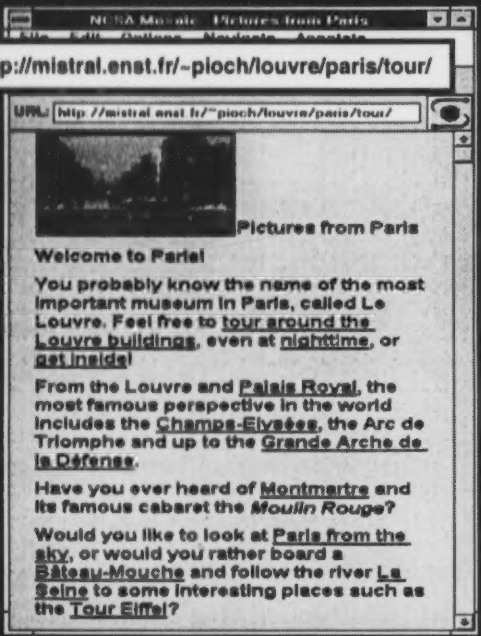
UR:http://www.exploratorium.edu/

- The Palace of Fine Arts - a short illustrated history


NCSA Mosaic - NPR Main Menu
File Edit Options Navigate Annotate Starting Points Help
URL: http://www.npr.gov/cgi-bin/imagemap/NPR_HOME_IMAP?95,255
Select a Tool:
Town Hall
NetResults
Success Stories
Reinvention Labs
Reports of NPR
Library
NATIONAL PERFORMANCE REVIEW
NUM

On-line evaluation of this System! (or send email to:

URL:http://www.npr.gov/cgi-bin/imagemap/NPR_HOME_IMAP?95,255


NCSA Mosaic - Pictures from Paris
URL: http://mistral.enst.fr/~pioch/louvre/paris/tour/

URL:http://mistral.enst.fr/~pioch/louvre/paris/tour/

Pictures from Paris

Welcome to Paris!

You probably know the name of the most important museum in Paris, called Le Louvre. Feel free to tour around the Louvre buildings, even at nighttime, or get inside!

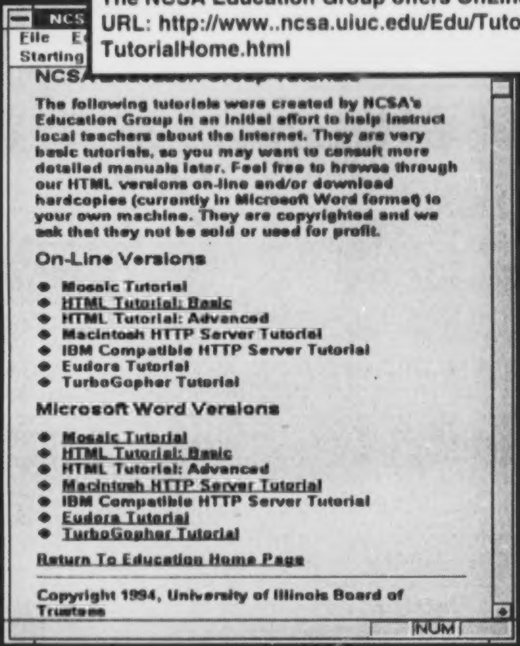
From the Louvre and Palais Royal, the most famous perspective in the world includes the Champs-Elysées, the Arc de Triomphe and up to the Grande Arche de la Défense.

Have you ever heard of Montmartre and its famous cabaret the *Moulin Rouge*?

Would you like to look at Paris from the sky, or would you rather board a Bâteau-Mouche and follow the river La Seine to some interesting places such as the Tour Eiffel?

How to Make A Home Page: WEB TUTORIALS

The NCSA Education Group offers OnLine Tutorials
URL: http://www..ncsa.uiuc.edu/Edu/Tutorials/
TutorialHome.html



NCSA

The following tutorials were created by NCSA's Education Group in an initial effort to help instruct local teachers about the Internet. They are very basic tutorials, so you may want to consult more detailed manuals later. Feel free to browse through our HTML versions on-line and/or download hardcopies (currently in Microsoft Word format) to your own machine. They are copyrighted and we ask that they not be sold or used for profit.

On-Line Versions

- Mosaic Tutorial
- HTML Tutorial: Basic
- HTML Tutorial: Advanced
- Macintosh HTTP Server Tutorial
- IBM Compatible HTTP Server Tutorial
- Eudora Tutorial
- TurboGopher Tutorial

Microsoft Word Versions

- Mosaic Tutorial
- HTML Tutorial: Basic
- HTML Tutorial: Advanced
- Macintosh HTTP Server Tutorial
- IBM Compatible HTTP Server Tutorial
- Eudora Tutorial
- TurboGopher Tutorial

Return To Education Home Page

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Subject: ANNOUNCE: Web Tutorial slides
Date: 26 Aug 1994 16:40:27 GMT

A set of Web Tutorial Slides written in HTML is now available. Although some parts are necessarily site-specific (e.g. how to install a new home page), the slides are potentially interesting to anyone giving or wanting to see a Web tutorial. They form the core of a 60 minute "live" tutorial (running Mosaic on a workstation with overhead projector monitor) given on 9 August 1994 at a Carnegie Mellon retreat.

http://www.cs.cmu.edu:8001/afs/cs/usr/mwm/www/tutorial/

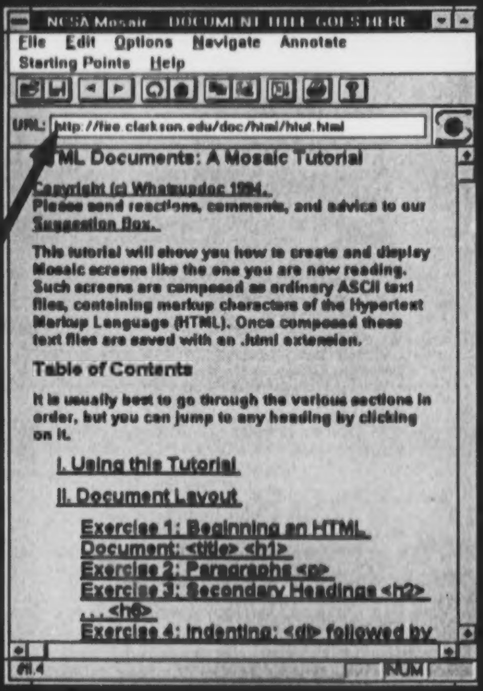
Mark Maimone
tel: +1 (412) 268 - 7698

FAQ: Creating WWW HTML Documents (from comp.infosystems.www)

WWW FAQ
This document resides on the World Wide Web on Sunsite

The HTML Documents: A Mosaic Tutorial (Copyright © Whatsupdoc 1994), written by Wm. Dennis Horn of Clarkson's Technical Communications Department, is the intellectual property of Whatsupdoc. This tutorial will show you how to create abd display Mosaic screens. Such screens are composed as ordinary ASCII text files, containing markup characters of the Hypertect Markup Language (HTML). Once composed these text files are saved with an .html extension.

Point to:
URL: http://fire.clarkson.edu/doc/html/htut.html


NCSA Mosaic DOCUMENT TITLE GOES HERE
File Edit Options Navigate Annotate
Starting Points Help
URL:
NUM

URL: http://fire.clarkson.edu/doc/html/htut.html

ML Documents: A Mosaic Tutorial

Copyright (c) Whatsupdoc 1994.
Please send reactions, comments, and advice to our Suggestion Box.

This tutorial will show you how to create and display Mosaic screens like the one you are now reading. Such screens are composed as ordinary ASCII text files, containing markup characters of the Hypertext Markup Language (HTML). Once composed these text files are saved with an .html extension.

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I. Using this Tutorial

II. Document Layout

Exercise 1: Beginning an HTML Document: <title> <h1>
Exercise 2: Paragraphs <p>
Exercise 3: Secondary Headings <h2> . . . <h6>
Exercise 4: Indenting: <dl> followed by

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The Instruction Corner: FAQs

What are FAQS?

FAQS or *Frequently Asked Questions* are listings of questions and answers on a subjects that are commonly asked by new users typically of a listserv or newsgroup. FAQs are also written for advanced users that deal with more complex subjects.

Who issues and authors them?

Listservs, newsgroups, associations, service providers, institutions, the White House, and individuals issue FAQs that provide target audiences with critical information. FAQs are posted to INFORM and provide basic information with the intent of minimizing the repetitious posting of common questions that tend to clutter or create "noise" on the nets or major bottlenecks in individual mailboxes.

How Frequently Are They Updated?

Some are regularly updated every three-six months, and some are more-or-less archived away for posterity. It depends on the subject and in general most of the FAQs deal with the technology, its application, and new software developments and hence require more frequent revision. However, it is important that you check the date of the last revision.

Where Are They Located?

Most FAQs are archived in servers typically maintained by the originating author, newsgroup, listserv or institution. Typically, the most up-to-date version is the one available on the server.

How Can They Be Found?

The good news is most of the time, the ones that will interest you, tend to find you. When you join a listserv such as comp.infosystems, or kidsphere, or ednet you will regularly receive updated faqs. Of course, Gleason Sackman's net-happenings <net-happenings@is.internic.net> regularly announces new or revised faqs.

How Good Are They?

Like everything else on the net it depends. Often these FAQS are compiled by the "old hands" and "the regulars" on a listserv or newsgroup. Some are quickly put together and cover very simplistic Q & As and others like the ISN-WG FAQ for educators and Harry Krietz's FAQ on Windows and TCP/IP Internet Access take longer to compile and have a great deal of value-added information.

FAQS on Selected Topics

NCSA Mosaic for Microsoft Windows FAQ
URL: ttp://www.ncsa.uiuc.edu/SDG/Software/WinMosaic/FAQ.html

Frequently Asked Questions About Macintosh
URL:http://rever.nmsu.edu/~elharo/faq/faqs.html

NCSA Mosaic for Macintosh FAQ
http://www.ncsa.uiuc.edu/SDG/Software/MacMosaic/

Using and Licensing NCSA Mosaic FAQ
URL:http://www.ncsa.uiuc.edu/SDG/Software/Mosaic/Doc

FAQ: Creating WWW HTML Documents (from comp.infosystems.www)
URL: "http://www.umcc.umich.edu/~ec/www/html_faq.html"
This FAQ list covers the two sides of World Wide Web (WWW) document creation: Authoring and Conversion. The former is the practice of sitting down to create a new document with the intent of providing it via WWW. The latter refers to creating WWW documents based on existing material.

COMP.INFOSYSTEMS.WWW FAQ
The latest version is always available on the web as <http://siva.cshl.org/~boutell/www_faq.html>.

WORLD WIDE WEB FREQUENTLY ASKED QUESTIONS
This document resides on the World Wide Web on Sunsite
UR:: http://sunsite.unc.edu/boutell/faq/www_faq.html

The PC-Mac TCP/IP FAQ is now available on World Wide Web. The current version of the FAQ is available for ftp from:
ftp.rtd.com:/pub/tcpip/pcnfsfaq.txt [ASCII Text Version]
ftp.rtd.com:/pub/tcpip/pcnfsfaq.zip [PKZIP Version]
ftp.rtd.com:/pub/tcpip/pcnfs.current.Z [Unix Compress Version]
ftp.rtd.com:/pub/tcpip/pcnfs.current.gz [GNUZIP Version]
The World Wide Web Hypertext link is:
http://www.rtd.com/pcnfsfaq/faq.html

White House Publications And Public Access EMail FAQs 1. SUNSITE.UNC.EDU pub/academic/political-

The ISN-WG of the IETF) (FAQs) of the elementary andsecondary school community. Go to: Other gophers/International/Internet Society/IETF/FTP Archive of Internet Drafts. The file is: draft-ietf-isn-faq-02.txt

Windows and TCP/IP for Internet Access FAQs. The complete version of this document is availableby anonymous ftp from: nebula.lib.vt.edu in directory /pub/windows/winsock under filename wtcpip05.asc

The Digital Calendar

September

25-28 September **Learning Environment Technology - Australia 1994 (LETA 94)** Adelaide, Tea Tree Gully campus of the Torrens Valley Institute of Vocational Education. LETA 94 is an international event including a Conference and interactiveExpo. It is designed to provide delegates from Australia and overseas with a range of experiences in learning technology, its application to the learning environment, the built environment is which technology is used, and the management of technology based learning environments. For more information contact: LETA 94 Conference, C/- SAPMEA Conventions, 80 Brougham Place,
North Adelaide
South Australia 5006
tel: international + 618 239 1515
fax: international + 618 239 1566
email: rleonard@nexus.edu.au

October

11-14 October **PNC - People, Networks & Communication '94** Honolulu; Island of Oahu - " The Gathering Place ", Hawaii; Mid-Pacific Conference Center, Hilton Hawaiian Village Resort. Sponsored by The Pacific Network Consortium Limited. Contact Information: Conference Chairman: Dr. Ernest Kho, Jr., Chairman - Department of Chemistry, University of Hawaii - Hilo.
Tel: +1 808.933.3383; Fax: 808.933.3693;
E-mail: ekho@uhunix.uhcc.hawaii.edu

13-15 October **Schools for the Future: An American Renaissance**; San Antonio, Texas, Marriott River Center Hotel. Hosted by the Renaissance Group and the Sam Houston State University
For information contact:
<ICC_DRL@SHSU.EDU>

14-16 October **MATHEMATICS, SCIENCE & TECHNOLOGY: PARTNERS FOR THE FUTURE**, California State University, Fresno, CA. Sponsored by The California Mathematics Council Central Section and The School Science and Mathematics Association. For information contact:
PROGRAM CHAIR,Elizabeth Sullivan; FCOE, 1111 Van Ness Fresno, CA 93721;
tel: +1 209-265-3071
e-mail: **< esulliv@eis.calstate.org>**

25-26 October **Multimedia Schools '94** The Practical, How-to Conference & Expo for School Professionals Working with Multimedia, CD-ROMS, Online & The Internet. Hyatt Regency, San Francisco, CA. For an Advance Program tel: +1 203-761-1466 or 800-248-8466; fax: +1 203-761-1444, or mail coupon to: MA'94, 462 Danbury Road, Wilton, CT 06897-2126

31 October to 3 November **EDUCOM'94, Transforming Education, Measures and Milestones,** San Antonio Convention Center, San Antonio, Texas. Hosted by the University of Texas at San Antonio and Trinity University. The premier conference on information technology in higher education. More detailed information about EDUCOM'94 and preconference seminars can be obtained via WAIS, Gopher, or ananymous FTP from the EDUCOM server at <educom.edu> or by sending e-mail to <conf@educom.edu>, or by calling +1 202 872-4200.

November

3- 5 November **15TH ANNUAL INSTRUCTIONAL TECHNOLOGY CONFERENCE** at the Sheraton Tacoma, Tacoma, WA, USA. Hosted by the Instructional Technology Standing Committee of the Communications Technology Center of the Washington State Community and Technical Colleges. For information send e-mail to:
< institute@ctc.ctc.edu>
FAX: (206) 881-4470
voice: (206) 881-4409
snail mail: Communications Technology Center, 3860 - 159th Ave NE, #150, Redmond, WA 98052

3 November **MAINEducation '94, "Technology for Communications"**; Augusta, ME; The Maine Center for Educational Services; P.O.Box 620, Auburn, ME 04212-0620; tel. +1 207 783-0833.

3-5 **"Horizons '94: Dealing Technology A New Hand"**; Vancouver, BC; Fall Conference of the Computer Using Educators of British Columbia (CUEBC), For more information contact: David Brear , 3049 Chaucer Avenue, North Vancouver, BC V7K 2C1 Canada; Tel: +1 604 436-1267; fax +1 604 434-1388; e-mail: <dbrear@cln.etc.bc.ca>

10-13 November **TEL Ed'94** Albuquerque Convention Center in Albuquerque, NM. This conference is one of the premier conferences for educators on distance education technologies, including networking for instructional purposes. Over 1000 educators, policymakers and resear-chers are expected to participate. For information contact: Lori Novak, ISTE, Tel Ed'94, 1787 Agate Street, Eugene, OR 97403-1923; tel: +1 503-346-2411;
fax: +1 503-346-5890; e-mail:
<Lori_Novak@ccmail.uoregon.edu>

December 1994

5-6 December **Libraries and the National Information Infrastructure**; Quality Hotel, Silver Spring, Maryland . Sponsored by CAPCON Library Network. A brochure with the program and registration information may be obtained by calling CAPCON at +1 202 331-5771 or by sending an e-mail message to: <niiconf@capcon.net>

February

7-11 February Texas Computer Education Association (TCEA) 15th Annual State Conference, Austin Convention Center, Austin, TX; Contact: Robert Knight, Executive Secretary, TCEA;tel: +1 800 282-8232; fax +1 806 799-0906; e-mail: knight@tenet.edu.

March 1995

22-25 March 1995 **SITE'95** 6th International Conferene in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to:
SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: **<AACE@virginia.edu>**

INTERNET INFOSTORE

MacWeb Client

MCC's Enterprise Integration Network (EINet) is now introducing WinWeb Version 1.0 A2, a Windows-based World Wide Web browser that is available as freeware for non-commercial use. WinWeb provides an easy-to-install, easy-to-use tool that will help users access, retrieve and organize widely distributed information while providing a means to manage and integrate the wealth of information, services and resources available on the Internet.

WinWeb is available via anonymous FTP from:

machine: ftp.einet.net
file: /einet/pc/winweb.zip

It is also available to World Wide Web users from the following Uniform Resource Locator (URL):

ftp://ftp.einet.net/einet/pc/winweb.zip

"WinWeb is designed for someone who is not a Web, or even an Internet, guru. It is intended to be an easy-to-use tool for the business person that will help in his or her day-to-day activities," explains Paul Van Vleck, member of the MCC technical staff and lead developer of WinWeb. "One of the most appealing features is that WinWeb is very easy to install and easy to use. It performs as the user would expect a standard Windows application to function, with the same sort of user interface and straight-forward dialogue boxes that have made Windows products so popular. For the user who is familiar with other Web browsers, we expect the print and print preview features to have great appeal. Also, the 'hotlist,' which acts as 'bookmarks' so users can easily go back to their favorite sources, is a nice feature. It allows users to pick particular Web pages and add them - either manually or automatically - to their list." Van Vleck says the alpha version of WinWeb is being made available as freeware to allow broad use of the software and provide feedback for further refinement of features and capabilities. A commercial version, which will include additional features such as EINet security services, is currently under development and expected to be released soon.

WinWeb - like its Macintosh counterpart, MacWeb - supports the display of text, graphics, sound, and video and can be used to view information from a number of Internet sources, including EINet Galaxy, a directory service developed by EINet which provides a comprehensive index of information available on the Internet. The Galaxy directory is constantly being expanded by electronically locating, compiling, reviewing, and organizing broad bodies of data and applications found throughout the Internet. Users can reach the EINet Galaxy directory from URL:

http://galaxy.einet.net/galaxy.html

AppleWebSearch 1.0

Version 1.0 of AppleWebSearch is now available via anonymous FTP from:

ftp://ftp.uth.tmc.edu/public/mac/MacHTTP/
applewebsearch.sit.hqx

AppleWebSearch is a collaborative effort between Apple Computer, Inc. and the University of Texas-Houston Health Science Center to provide a gateway mechanism for making AppleSearch information sources available to others on the World Wide Web. AppleWebSearch is implemented as a gateway (CGI) application for use with MacHTTP and requires a version of MacHTTP that supports the CGI file type and the "Search Doc" AppleEvent. This means you must use MacHTTP version 1.3.1b1 or later.

AppleWebSearch supports two types of WWW client interfaces. The simplest uses the <isindex> search arguments passed from a WWW client like Mosaic or MacWeb to perform searches on an AppleSearch information source. There is a more comprehensive interface available that uses fill-in forms to collect search arguments from the user. To use the forms interface, you must access MacHTTP and AppleWebSearch using a WWW client capable of supporting forms. MacWeb and the alpha version of Mosaic 2.0 both support forms.

AppleWebSearch is invoked by MacHTTP in response to a client's request for a particular URL. MacHTTP passes arguments to AppleWebSearch via custom AppleEvents. These arguments are obtained from the path and search arguments contained in the URL sent to MacHTTP. If you are unfamiliar with path and search arguments, you may want to read through the documentation and examples that come with the latest beta version of MacHTTP.

AppleWebSearch uses these arguments to perform search operations with the AppleSearch server that it is connected to. The results are formatted into a HTML document that is automatically generated by AppleWebSearch and returned to MacHTTP (and then to the WWW client.) Much of the information in the generated forms can be modified by changing TEXT resources within the AppleWebSearch application.

Check the MacHTTP Home page for more details.
http://www.uth.tmc.edu/mac_info/machttp_info.html

BUSINESS NEWS

Commercial Rights to Spyglass

Spyglass, Inc., and the University of Illinois at Urbana-Champaign recently announced a master-license agreement assigning to Spyglass all future commercial licensing rights for the University's NCSA Mosaic graphical Internet browser. Spyglass develops and distributes commercially enhanced versions of Mosaic for Windows, Macintosh and UNIX computers. Spyglass licenses its Enhanced NCSA Mosaic to networking software companies, systems vendors and online service providers for incorporation into their products and services.

Since becoming a commercial licensee of NCSA Mosaic in May, Spyglass has licensed a total of more than 5 million copies of its Enhanced NCSA Mosaic to these companies and others, who are integrating it into their products for distribution to end-users.

NCSA Mosaic is the most popular graphical browser for the Internet. More than two million copies of Mosaic are in use, and an additional 30,000 copies are being downloaded each month from the Internet. NCSA Mosaic was developed by the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign. Mosaic gives users point-and-click access to the World Wide Web, an information retrieval system on the Internet with more than 3,000 graphical, multimedia databases of "hyperlinked" documents.

The new University of Illinois - Spyglass agreement is an extension of a multimillion-dollar joint development and licensing agreement signed in May. Under the new agreement, NCSA will now focus on research into advanced features for the next generations of Mosaic, such as voice recognition, full-motion video, and intelligent agents for searching on the Internet. Spyglass will develop and bring to market commercially enhanced versions of NCSA Mosaic, focusing on large-volume sales to other vendors.

NCSA will continue to offer a public-with-copyright version of Mosaic over the Internet, which individuals can download for free. As part of its agreement with NCSA, Spyglass will provide a number of its improvements to NCSA for incorporation back into the public-with-copyright version.

For more information about Enhanced NCSA from Spyglass, prospective licensees may contact Spyglass at (217) 355-6000 or mosaic@spyglass.com. Additional information about Spyglass and Enhanced NCSA Mosaic is available on Spyglass' Web server, http:\\www.spyglass.com.

Now Available—NCSA Mosaic Version 2.0 alpha 7

NCSA Mosaic for Microsoft Windows Version 2.0alpha7 is now available. NCSA Mosaic is a network navigational tool that will allow easy access to networked information with the click of a button. Mosaic is capable of accessing data via protocols such as HTTP, Gopher, FTP and NNTP (Usenet News) natively, and other data services such as Archie, WAIS, and Veronica through gateways. NCSA Mosaic was designed to provide its user transparent and seamless access to these information sources and services.

The software is available from:

http://www.ncsa.uiuc.edu/SDG/Software/WinMosaic/HomePage.html

or by anonymous FTP to **"ftp.ncsa.uiuc.edu".** The software is found in the /PC/Windows/Mosaic directory.

Documentation for Mosaic can be found online via the "Documentation" link on the NCSA home page. These html files are also available from NCSA's anonymous ftp server, ftp.ncsa.uiuc.edu. The file mosdocA5.zip can be found in the /PC/Windows/Mosaic/Document directory.

Win32Sv1.1.5a software must be installed before you can use the new version of NCSA Mosaic. It is available from Microsoft's anonymous ftp server and you can find the file Win32s115a.Zip in the /developr/win32dk/sdk-public directory. There is also a mirror a copy of this software on the NCSA ftp site, ftp.ncsa.uiuc.edu. A readme file has been added and re-zipped into a file called win32s.zip. This file can be found in the /PC/Windows/Mosaic/ directory of our anonymous ftp server.

NCSA Mosaic for Microsoft Windows is a WinSock client program. It requires network (TCP/IP) access through the WinSock DLL interface. If you are using Windows NT, this is built in. If you are using Windows 3.1, you need to obtain a WinSock and install it on your system. If you are running a commercial TCP/IP stack, such as FTP Software, Novell, PCNFS, etc., you will need to obtain that vendors winsock.dll. If you need a winsock.dll and you would like to obtain a shareware product called the "Trumpet Software International Winsock", you can find the latest version at ftp site, ftp.utas.edu.au. The file winsock.zip is in the pc/trumpet/winsock directory.

Images, continued from p. 3

Technology tools were a MacIntosh LCII, NIH Image Software, satellite imagery of Olympus Mons, a modem and the Florida Information Resource Network, FIRN, the telecommunications network provided by the state of Florida free of charge for Florida educators and their students. The unit easily integrated the following: math (decimals, geometry, measurement, metrics, math analysis); science (Earth and Space, Aerospace, process skills); technology (calculators, CD-ROM, interactive laser disc, Computer Assisted Instruction, telecommunications); language (comprehension, vocabulary, study and reference skills, written communication); and geography including map skills.

Students first searched for the answer to the largest volcano question in the school media center's automated card catalog and the CD-ROM version of Grollier's Encyclopedia. The search produced no answer, but, armed with books, the students returned to the classroom. They learned that volcanos occur along the edges of the tectonic plates; they learned there are several different kinds of volcanoes; and they learned that the largest volcano on Earth is Mauna Loa in the Hawaiian Islands, but still they found no answer to the question. What next?

"Do you think anyone on our modem would know, Mrs. Stevenson? " was the response. A request for information was placed on Kidsphere which is an Internet listserv for educators and students to share information and activities Within hours answers began returning to the classroom e-mail account. Olympus Mons on Mars is the largest volcano in our solar system.

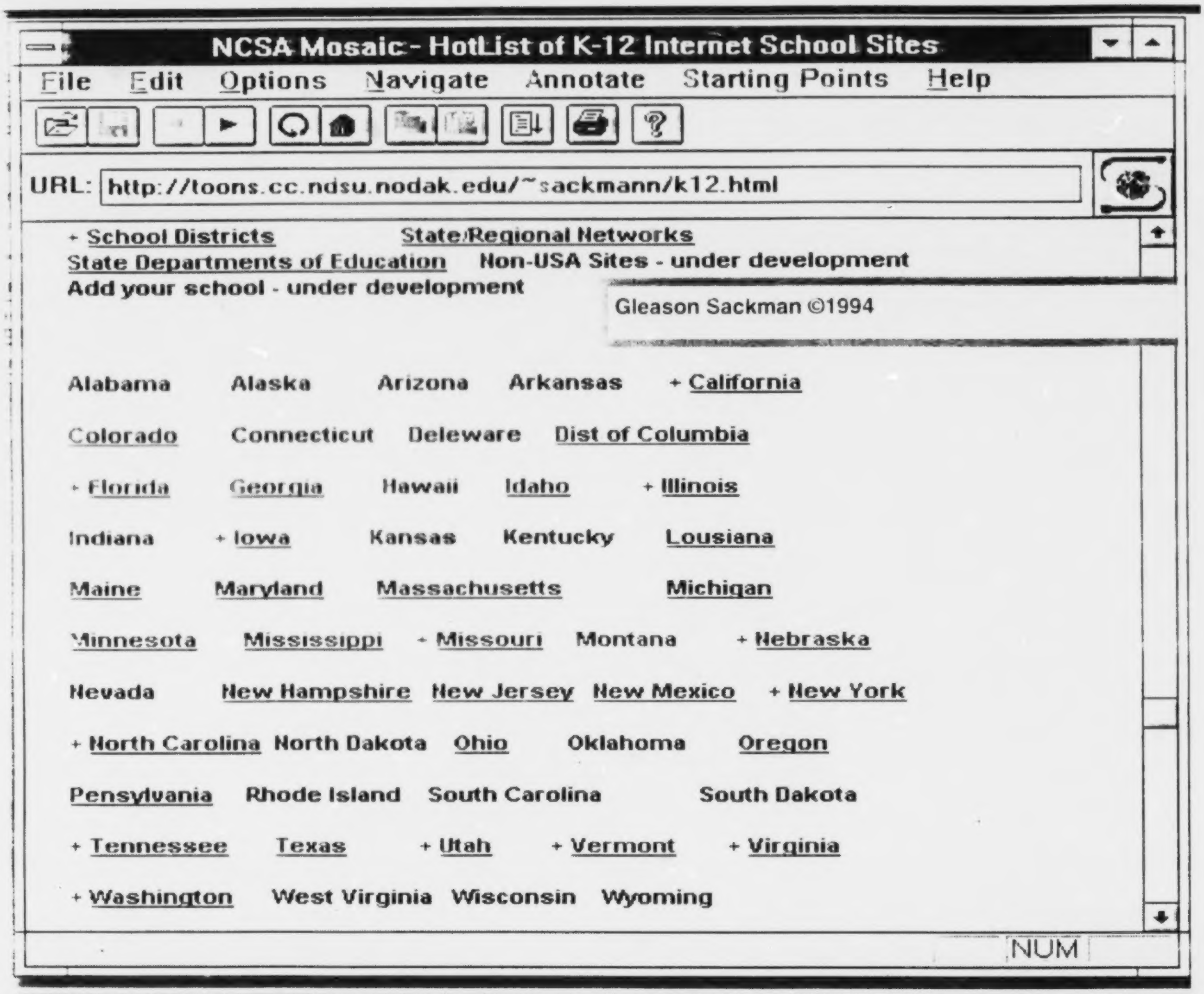
So began the study of Olympus Mons, a culmination of a collaboration begun at a meeting for consensus on the use of telecommunications. Dr. Dave Thomas of Montana State University's math department and I began brainstorming how we could use the satellite imagery in my classroom. Our mutual interest in the use of satellite imagery in the classroom and in telecommunications led to a plan to bring math science visualization tools to my fourth grade students. In a cooperative effort using telecommunications and the US Postal Service I received A copy of NIH Image, a tiff file of Olympus Mons, and an 8th grade lesson plan drafted by Dave Thomas.

After finding out that Olympus Mons was the solar system's largest volcano, I presented the plan to my class explaining that although this was an 8th grade plan I felt that with their help we could adapt it to our grade level. They were the grade level experts and I was relying on them to help me put this into fourth grade words and ideas. Each day we worked through the plan sequentially. Learning decimals with place value blocks; learning the meaning of pixels; using calculators for difficult operations, converting meters to kilometers; using basic geometric measurement; and finally learning how to use the software, NIH Image. The integrated unit was enhanced with information from Tom Snyder's Great Solar System Rescue laser disc. Each child was able to measure and analyze the diameter and circumference of Olympus Mons and then compare how its area to the total area of the state of Florida by drawing a comparison model and writing about what they had observed. They loved it.

The true test of how well these tools motivated the students came when they were asked to come back to school the first week of summer vacation to attend a workshop in their classroom given by Dr. Thomas. They practiced and extended their new skills with other images and software. The main objectives of the workshop were observing the students' reactions to interdisciplinary activities involving integrated mathematics, science, and scientific visualization tools; empowering students with math and science curriculum enhancement leading to increased competence and self esteem; and preparing students for realistic lifelong work skills. Each student was paired with a teacher. The first activity had the students "teaching the teachers" how to measure Olympus Mons. I knew that more than rote memorization had happened when one of my students when asked how volcanoes started replied that it all began with tectonic plates.

The interaction of the teachers, parents, student and online collaborators was a positive step for realizing that the boundaries of the classroom walls were only as close as a modem line. That real people, scientists and mathematicians, were on the other end of the computer taking an active interest in the students and committing to lead them in discovering that learning is an electric (no pun intended) experience . Not only was Dr. Thomas there as a real person rather than words on a screen, but also several members of Florida EXPLORES!: Ray Taggart, a middle school teacher from Orlando who participated in a telecommunications project with the class; Steve Tindell, a high school science teacher; and Steve Graham, an FSU representative of the Florida EXPLORES! Program. Telecommunications came alive in the form of caring teachers, and visiting experts interested in the future of students and technology.

Stephanie Stevenson teaches a fifth grade Graduation Enhancement class at Holley-Navarre Intermediate School, Navarre, Florida.



URL: http://toons.cc.ndsu.nodak.edu/~sackmann/k12.html

+ School Districts State/Regional Networks
State Departments of Education Non-USA Sites - under development
Add your school - under development

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Alabama Alaska Arizona Arkansas + California
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+ Florida Georgia Hawaii Idaho + Illinois
Indiana + Iowa Kansas Kentucky Lousiana
Maine Maryland Massachusetts Michigan
Minnesota Mississippi + Missouri Montana + Nebraska
Nevada New Hampshire New Jersey New Mexico + New York
+ North Carolina North Dakota Ohio Oklahoma Oregon
Pensylvania Rhode Island South Carolina South Dakota
+ Tennessee Texas + Utah + Vermont + Virginia
+ Washington West Virginia Wisconsin Wyoming

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

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Save for RIE

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NetTEACH NEWS

Volume 2, No. 5 The Newsletter for K-12 Networking Educators October 26, 1994

Learning OnLine— Virtual Outward Bound Adventures

by Kathy Rutkowski

"I saw the Grand Canyon for the first time in the spring of 1963. I sat on the edge of the South Rim and played my soprano sax, and as the sound disappeared into the vastness I imagined there must be spaces with wondrous echoes somewhere in the depths below me. But in those days I had no thought of making music in the wilderness." Paul Winters in his introduction to the Canyon Album, 1985 Living Music Records.

I can recall waking up one cold morning somewhere in the Gila Wilderness area of New Mexico and watching a hummingbird hover nearby me, already beginning its morning ritual of looking for nectar. This was my first encounter with a hummingbird, and I took one look at its beak and marvelled how life finds a way to modify itself to satisfy the most basic need of survival.

On another occasion, on a cold delivery room table, I recall the first moment I saw a life that had emerged from my body—my daughter. At that moment of separation, I felt overwhelmed by the power of creativity—life had found a way and I was an ecstatic conduit.

In our lives, each and every one of us will have hopefully many such wonderful moments of "awakening" when we can touch the face of eternity not with fear but with marvel, not with disillusion but with hope, not with ridicule but with profound respect.

All too often we are denied or deny ourselves these experiences. We lead lives conditioned by bells, clocks, schedules, curriculum, tests, performance reports, and the like. There is little time to experience wonder, and sadly childhood is no exception.

School life is perhaps the most regulated of all, with little opportunity to deviate from plans created by "Master planners." The individual learner has almost no say in his or her own process of learning. There is little opportunity for spontaneity even in science laboratories at the high school level. There students trying to "make the grade" quickly figure out how to write up lab reports with an "acceptable" margin of error after their experiments "go up in smoke." Making mistakes and going off tangentially are frowned upon, and not viewed as something constructive.

Those of us who have lived long enough realize that perhaps the best of experiences cannot be planned but just happen, and perhaps the only plan we can have as "educators" is to provide ample opportunities for learners in our charge to experience spontaneous moments of "awakening".

This can be accomplished in many ways, and the best of the educators are constantly searching for new means to provide learning experiences. Field trips can be wonderful but are few and far between, and often turn into more of a logistical

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13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

BEST COPY AVAILABLE

OnLine Adventures *continued from p.1*

nightmare for the teacher than a healthy and happy co-learning experience with his or her class.

Television has helped to bring the world that cannot be visited in normal school hours into the classroom. Students can watch videos of rainforests, and volcanoes erupting, and witness the force of nature and the wonders of life and the world. With interactive tv, students are able to talk to scientists around the world, and to even talk to astronauts orbiting the earth in the Space Shuttle.

However, television has limitations and one of those limitations is that it remains largely a passive experience for the learner. There are too few opportunities for real-time response and interaction and even less opportunity for digression.

Global networks are emerging as the technology that is most able to support the kind of learning that occurs on an adventure—spontaneous, unpredictable, and demanding a high degree of learner commitment and decisionmaking. Students can not only interact with scientists and other experts real-time or on a regular basis, but can themselves navigate to all sorts of new and interesting worlds. Students that "explore" by navigating through World Wide Web servers have ample opportunities for divergence, and indeed the need to explore tangentially appears to underscore the way pages are created and linked together.

Students, however, benefit from a mentor on these "online" explorations and the kind and degree of mentoring depends on the maturity of the learner. Few students have the wisdom of Paul Winters, and can take these "encounters" and use them to give something back. Students need to understand that there is a purpose to learning and that random searching via the networks without focus can lead to confusion and frustration. What is important is to fuel the curiosity and the creativity of the learner and to instill in even the youngest of learner the power they have to use the technology constructively.

One growing opinion in today's society is that children can learn more at home on their own using these advanced technologies than in a school setting with a classroom teacher. Certainly children can learn on their own using this technology, but it is a rare child, particularly in the k-6 set that has the discipline and focus necessary to harness the full potential of the networks. This technology almost guarantees that teachers will have a greater role to play in the learning process in the future than they do now but it will be a teacher-innovator who is just as engaged in the learning experience as the learner.

This issue of NetTeach News is devoted to Online Explorations largely in a hope to encourage educators and their students to further harness the power of this technology. Most of the network projects that are implemented in today's school are often treated more like field trips than an actual classroom activity. Many of the network projects are limited because of an "intent" to comply with existing curriculum requirements. Few are pushing the system to reevaluate the entire process of teaching and learning, and to genuinely open the doors of schools to the outside world.

On a positive note the number of such projects are growing. Indeed it is difficult to track the many wonderful grassroots projects developed by educators in the classroom and their students. These projects are often the most interesting and innovative of all but lack the profile of other projects that have institutional backing.

One challenge those of us who are networking activists have is to find a better way to support these grassroots innovators and give them the greater voice and profile they justly deserve. It is not easy to take on the "system" by yourself, but many netteachers are doing so and with some positive results. Others, however, have put their jobs in jeopardy and themselves into precarious positions because of their genuine commitment to change and innovation. These too need our help and support.

Editor: Kathy Rutkowski

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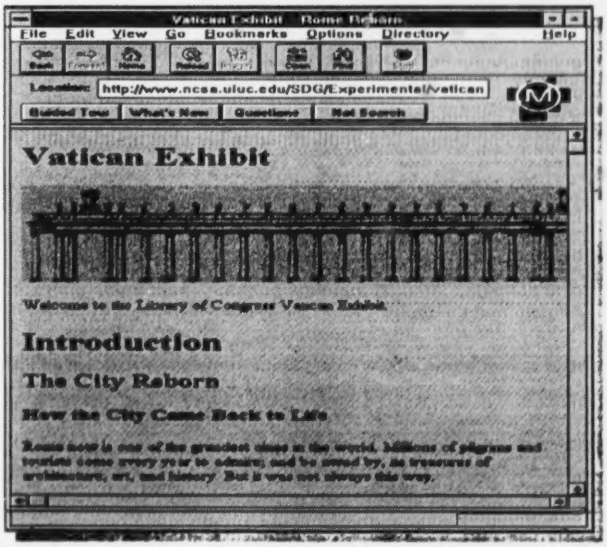
Unsolicited submissions are welcome and should be sent to the editor, Kathy Rutkowski, 13102 Weather Vane way, Herndon, VA 22071-2944 USA; tel: +1 703-471-0593; e-mail: kmr@chaos.com

A Parent's Tale of Two Learning Explorations—One by Foot and One Virtual

by Kathy Rutkowski

Recently, I took my two children out of school for a week to accompany my husband and myself on a trip to Italy. We spent our days exploring the treasures and archeological remnants of early Western civilization in Rome and Pompeii, and some of our most pleasant evenings sitting on terraces watching the sun set over the Gulf of Salerno and the city of Rome. There were no complaints of boredom but just tired legs and feet.

My 8 year old son returned to his school excited with the prospect of sharing with his class some of the sights he had seen, "treasures" he had acquired such as Vatican stamps and a piece of marble from Pompeii, and the impressions of a young world explorer. Armed with the typical tourist books he had picked out on Pompeii, Rome, and the Sistine Chapel, he headed with confidence to school.


Vatican Exhibit Rome Reborn
File Edit View Go Bookmarks Options Directory Help
Back Forward Home Reload Images Open Find Stop
Guided Tour What's New Questions Net Search

Location: http://www.ncsa.uiuc.edu/SDG/Experimental/vatican

Vatican Exhibit

Welcome to the Library of Congress Vatican Exhibit

Introduction

The City Reborn

How the City Came Back to Life

Rome now is one of the grandest cities in the world. Millions of pilgrims and tourists come every year to admire, and be awed by, its treasures of architecture, art, and history. But it was not always this way.

Normally my son is not eager to go to school, and in school is easily bored. However, when his days were filled with "learning" in a distant land, he was anything but bored and returned home to check out library books on Ancient Rome and continues to ask questions about early civilizations, volcanoes, and why so many Italians smoke cigarettes and what can be done about it?

Of course, few children can spend their days in distant lands, and travel remains a privilege but such adventures are now possible virtually via the Internet and other modern communications.

My daughter, who is a sixth grader, was assigned the task of putting together a travel brochure on Hawaii. We headed to the local library where she picked out the "one" book on Hawaii on the shelf and then we headed to the local bookstore where we picked up a travel book on Hawaii. We searched the family library and found some National Geographic treasures on the subject. She started to put together her brochure and was looking for pictures and more information. In particular, she wanted a photo of a volcano. I recalled a NASA Page and we started our search for information on Hawaii there.

Our explorations eventually led to a Hawaii Home Page that had a Visitor's Center. There we discovered photos of the State Bird—the Nene, and the State Fish—the Humuhumunukunukuapua. We also found photos of many of the places my daughter had chosen to write about such as: Sea Life Park, Honolulu Hale, and even the Hilton Waikola Village.

My middle age body found my adventurous trip to Hawaii with my daughter far less demanding than our family trip to Italy. Certainly nothing can compare to the sensual bombardment of a "real" trip to a distant land, and yet the virtual trip does provide more opportunity for spontaneous and random discovery that are possible using the more traditional research sources more typically available to learners.

From a parental vantage point, both adventures offer an opportunity to share the excitement of discovery with your child. Such explorations bring parents and children together as co-equal partners in a quest for knowledge.

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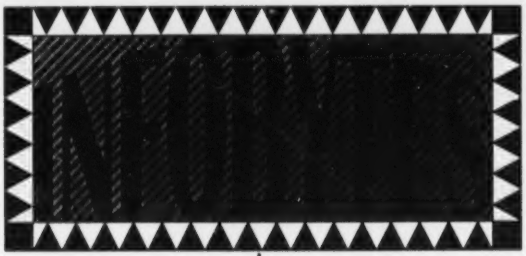

THE NEW SOUTH POLAR TIMES NOW AVAILABLE

For an ongoing, first hand account of life at the South Pole direct your pointers to:

URL:http://www.deakin.edu.au/edu/MSEE/GENII/NSPT/NSPThomePage.html

There you will find current and back issues of the New South Polar times—a newsletter intended for K12 teachers and their students. There are also lessons and ideas for how to use the newsletter in the classroom, information and data about science at the South Pole, information on how you can submit questions and receive anaswers to some frequently asked questions, and

-The most current issue of the New South Polar Times
-Back issues of the New South Polar Times
-Lessons and ideas for using the New South Polar Times in the classroom
-Information and data about science at the South Pole
-How you can submit questions and get answers to some frequently asked questions
-Other resources on the South Pole and Antarctica
-A History of South Pole Exploration

"The New South Polar Times" is a bi-weekly newsletter created by Lt. Tom Jacobs one of the staff at the Amundsen-Scott South Pole Station, SouthPole, Antarctica and Katie Wallet, a teacher in Virginia. The newsletter is intended to provide teachers and students around the globe with interesting and useful information about Antarctica as a continent and about the people who are doing research there.

Send comments and inquiries to Katie Wallet at: e-mail <kwallet@pen.k12.va.us>

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NASA K12 INTERNET SEEKS VOLUNTEERS

The NASA K-12 Internet Project is looking for volunteers to help manage their on-line interactive projects in support of exciting science education. K-12, college and graduate students, teachers, and entire classrooms are invited to assist in the construction of forms-based Web pages, moderation of special conferences, preparation of curricular materials, and translation of projects into foreign languages.

The volunteers will work from their homes or classrooms under the supervision of one of NASA's Project Managers, gaining valuable experience in producing interactive projects. NASA will provide whatever level of Internet access is required to support the work of its volunteers, including toll-free access and SLIP accounts if needed. NASA will provide letters of confirmation and evaluation if your work qualifies as in-service training, field work, or extracurricular credit .

NASA's on-line projects started in late September and will continue throughout the school year. Time commitments can be adjusted to fit your schedule.

NASA is looking for:

- Experienced HTML writers, with knowledge of forms support (or willing learn).
- Graphic artists (could be a class project)
- Moderators for special conferences
- Native speakers of foreign languages who are proficient in English (could be a class project)
- People with expertise in aeronautics, aviation, or aerospace topics interested in developing on-line curricula.

All positions require basic Internet proficiency.

NOTE: NASA expects to receive more applications than they have positions to fill. All applications will be carefully evaluated and responded to. Periodic updates on our projects and our need for helpers can be found at http://quest.arc.nasa.gov or ftp://quest.arc.nasa.gov in the "Project Helpers" area.

If you have any questions please send mail to "helpers-questions@quest.arc.nasa.gov"

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EXPEDITION NEWS

EXPEDITION NEWS is a new monthly review of major world-class expeditions, research projects and adventures. EXPEDITION NEWS is distributed electronically to media representatives, corporate sponsors, educators and explorers, and will cover projects that stimulate, motivate and educate.

To offer your comments and suggestions, or to submit an item to EXPEDITION NEWS, contact Jeff Blumenfeld at CompuServe 76226,773, MCI Mail 421-0571, Internet 0004210571@mcimail.com, telephone 212-764-1690, or fax 212-764-1699.

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GETTING TEACHERS ONLINE

NASA K-12 Internet Project would like to announce that "Getting US Teachers Online" (a guide to Internet access options for K-12 teachers) is now available through the following:

by gopher: quest.arc.nasa.gov via the following directory path: Documents/Getting US Teachers Online/

This document is also available under anonymous ftp on Quest under pub/Document/Getting-Teachers-Online with three type of versions:

Regular Text - Online.txt
Common Ground for Macintosh - Online.mac.bin
Common Ground for Windows - Online.win.exe

The purpose of this document is to address a fundamental need of the K-12 educator to find an interim method of connecting to the Internet, at an affordable price, until complete connectivity of all K- 12 schools across the U.S. is achieved. The document is aimed at the teacher who understands the potential for Internet inclusion in the classroom. It is intended to be a dynamic reference which will be updated as information becomes available. Updates should be sent to: <lindac@quest.arc.nasa.gov>

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ANNOUNCING DEVLINE - A NEW INFORMATION SERVICE ON THE INTERNET

DEVLINE is the DEVelopment information service on-LINE from the Britsh Library for Development Studies (BLDS) and is intended for all those with an interest in economic and social development and the relationships between rich and poor countries. DEVLINE is a free service now available over the INTERNET.

DEVLINE currently provides the following services:

- IDISDB, the online catalogue and journal articles database of the British Library for Development Studies, with over 80,000 records
- EGUIDE, an online database of electronic information sources on development studies
- Information about all other services of the BLDS
- Information about the services and activities of the Institute of Development Studies
- COURSES and PEOPLE, databases of British courses and specialists in development studies
- Information about academic development studies institutions in Britain

To connect to DEVLINE

TELNET to:
LIB.IDS.SUSX.AC.UK
(soon to change to:
LIB.IDS.AC.UK)

login: HELLO GUEST.MARC

For more information contact: Debbie Beer, Systems Librarian at email: d.beer@sussex.ac.uk

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Web66: A K12 World Wide Web Project

Navigate to URL: http://web66.coled.umn.edu/

The goals of this project are:

- To help K12 educators learn how to set up their own WWW Internet servers.
- To link K12 WWW servers and the educators and students at those schools.
- To help K12 educators find and use K12 appropriate resources on the WWW.

The Web66 server includes:

Classroom Internet Server Cookbook
This Cookbook gives recipes with step-by-step instructions for setting up a WWW, Mail, and FTP server on a Macintosh computer.

Web66 SharePages
Useful HTML pages that you can download for your own server.

Web66 Mailing List
A discussion group of educators using World Wide Web servers in their schools.

Web66 What's New Page
Modeled after the NCSA What's New page, the Web66 What's New page will contain announcements of interesting WWW events that are happening in K12 schools.

This project is an extension of the Hillside Elementary cooperative project with the University of Minnesota College of Education and the Center for Applied Research and Educational Improvement.

For information contact: Stephen E. Collins
URL: http://www.micro.umn.edu/staff/sec
E-Mail: sec@boombox.micro.umn.edu
Tel: +1 (612) 625-1300; Fax: +1 (612) 625-6817

Macvicar School of Education and Technology Mailing List

The Macvicar School of Education and Technology (MSET)— a school which is a part of the Globewide Network Academ— specializes in producing non-credit computer related courses and educational software products.

Macvicar has produced an online introduction to the internet course, a course on commodities trading, and a course on C++ which won the 1994 Best of the World Wide Web award. MSET is also responsible for producing the freely redistributable WWW editor tkWWW and is producing the Global C++ Library, a set of freely redistributable library routines.

The courses taught up to now have been free, and sustained by having the students of one semester serve as administrators and teachers for the next semester of students.

The texts of some of the courses thus far produced can be found at URL

http://uu-gna.mit.edu:8001/uu-gna/text/index.html

To subscribe to the list , send a message to:
listproc@moose.uvm.edu

in the main body write the command

Subscribe mset-talk <Your name>

CWEIS on LISTPROC@MTN.ORG

Community Wide Education and Information Services (CWEIS) is an unmoderated discussion list for the discussion of the Community Wide Education and Information Services (CWEIS) initiative. The purpose of the list is to facilitate discussion between various communities engaged in CWEIS projects, provide a place for community participation in the design of the CWEIS projects and to review CWEIS's role in the community information services movement.

Twelve community computer networking projects were funded across the nation, launching an initiative designed to develop and encourage free public access to education and information on-line services, and usinglocal public radio and television stations as a nucleus. The 12 projects, selected by CPB from among 90 proposals submitted by local public stations in 38 states, are located in Alaska, California, Colorado, Indiana, Massachusetts, Michigan, Minnesota, Nebraska, South Carolina, Virginia, and Washington. The initiative calls for regional, state and local public interest institutions such as schools libraries, museums, medical centers and local governments to join with local public radio or television stations. Help build a community-based telecommunications infrastructure that will provide access to essential services on the information superhighway.

This project is supported in part with funds provided by The Corporation for Public Broadcasting, in partnership with U S WEST. The list is sponsored by the Minneapolis Telecommunications Network (MTN) and the Corporation for Public Broadcasting (CPB) community networking initiative.

To subscribe to this list, send the following command to LISTPROC@MTN.ORG in the BODY of an electronic mail message:

SUBSCRIBE CWEIS Your Realname

Owners: Tamara Blaschko trb@mtn.org
John Ladwig jladwig@mtn.org

A Whole Language Listserv

There is now a listserv for teachers who are struggling with Whole Language or wish to share successes (or failures) with like minded teachers.

To subscribe send an e-mail message to:

LISTSERV@LISTSERV.ARIZONA.EDU

Leave the Subject Line Blank

The message should read:

subscribe TAWL <your first name><your last name>

Listserv owner: Michael McVey
mmcvey@ccit.arizona.edu

2020WORLD on MAJORDOMO@SEATIMES.COM

2020WORLD is an unmoderated listserv that will explore life in the year 2020.

2020world is a weekly column that is published in the Sunday Seattle Times Personal Technology section. Kurt Dahl, VP of Information Technology at The Seattle Times is the author of this column. The column will be posted to this mailing list every Monday.

2020world will explore how digital technologies will change society. The column is not intended to be about technology but about how networks will impact on people in their homes, in the workplace, and in their communities.

The purpose of the listserv is to elicit comments from readers that lead to a serious exploration of issues raised by Mr. Dahl. The best audience responses will be published in the paper.

TO SUBSCRIBE to the 2020world list send an e-mail message to:

MAJORDOMO@SEATIMES.COM

Leave the subject line blank and use the following message:

SUBSCRIBE 2020WORLD

TO SEND MESSAGES to the list send your email messages to:

2020WORLD@SEATIMES.COM

Owner: Laura Ashworth -- year2020@seatimes.com
Ass't to Kurt Dahl, author of column
The Seattle Times
P.O. Box 70
Seattle, WA 98111
(206) 464-3339 (voice mail); (206) 382-8898 (FAX)

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Community Economics Development Listserv

CED-NET on Majordomo@sfu.ca is an unmoderated discussion list that focuses on trends, opportunities and changes in community economic development. The focus will be on what communities can do for themselves in terms of achieving access to knowledge, programs, markets, and funds.

Some examples of relevant topics for CED-NET are:

*Information sharing
*Appropriate training
*What makes communities most likely to succeed or fail
*Innovative technologies and local development
*Community computer networking
*Appropriate governmentt programs and intervention
*Enhancing local financial capacity
*The need for entrepreneurship
*First Nations development
*Acheiving sustainability

TO SUBSCRIBE to CED-NET send an e-mail message to majordomo@sfu.ca with the body of the message stating:

subscribe CED-NET

TO SEND MESSAGES to the list send your email messages to:

CED-NET@SFU.CA

To send messages to the list owner send your messages to

cedc.sfu.ca

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ANNOUNCING "XTAR" - A NETWORK FOR TEACHER RESEARCHERS

XTAR is a discussion list intended for teacher researchers to share their work, insights, problems and suggestions - with colleagues in schools and universities all over the world. Anyone involved in classroom inquiry is welcome to participate and to encourage others to do so.

TO SUBSCRIBE to XTAR, send a message to:

listserv@lester.appstate.edu

In the body of the message write:

Subscribe XTAR and your name

For further information contact:
William E. Blanton < BlantonWE@conrad.appstate.edu >
Gordon Wells <gwells@oise.on.ca>

MAYAQUEST

During this school year, a kid-directed team of archeologists and bicyclists will be using the latest technology to help illuminate one of the greatest mysteries of all time: the collapse of the Ancient Maya Civilization.

Between February and May, 1995, the team will travel through Guatemala, Belize, Honduras and southern Mexico. On mountain bikes they'll carry Hi-8 cameras, laptop computers and EXEC*SAT satellite transponders which will connect the team to an on-line audience featured on Prodigy and the Internet.

Students will be able to help direct the expedition and help answer questions by archeologists in the field. CNN Newsroom will air weekly reports on the expedition's progress and students in Minnesota will produce live satellite programs with accompanying support curriculum available via the Internet. All Internet materials are available via Gopher, World Wide Web, or e-mail.

Beginning October, 1994, TIES (Technology and Information Educational Services), InforMNs (Internet for Minnesota Schools) of Minnesota and MECC are creating an Internet program designed to establish threads of activity around the expedition. These "threads" will provide interdisciplinary curriculum materials for teachers and background information for students to consider archeologist's questions.

Site managers will be asked to work with their students to build enhanced curriculum resources for distribution via the Internet. These sites will in turn archive their resources via the Internet on a central computer in Minnesota.

Each work site will be assigned tasks which support one of the following activity threads:

- Natural Disaster -- Did the ancient Maya civilization fall because of an earthquake, hurricane or drought? School Site Assignment: track the weather reports and conditions uploaded by the team daily, provide history of earthquakes and hurricanes in Middle America, provide articles on how natural disasters have effected other ancient and modern civilizations. And Internet links to related weather information.
- Environment -- Was poor management of the environment and their natural resources(including land, air, water) the cause their demise and how well are we managing today? School Site Assignment: upload wetlands data and satellite images provided by NASA of the research around Merida, identify similar wetlands and its importance to our ecosystem here in the U.S. Work with local Department of Agriculture for data on and information on farming methods used in Central America, such as terracing. Upload information on current rate of rain forest depletion and make predictions.
- Tribal warfare-- Did tribal warfare kill off this unique civilization? This theory is supported by evidence of fire and destruction at ancient Mayan sites. School Site Assignment: gather content around the notion that tribal warfare

(SEE **MAYAQUEST** *on page 22)*

Planet X

PLANET X, a space science program featuring performance-based assessment, is offered by the National Talent Network of the Educational Information and Resources Center (EIRC), Sewell, NJ. It is targeted at students in the 7th and 8th grade with diverse interests in
future space and science technologies, earth science, geography, chemistry and navigation; and offered to a broad range of ability areas.

Through a series of individual and group activities students learn basic experiments to test and prepare unknown samples of the atmosphere, hydrosphere, and lithosphere of the planet. Working as a team, students design and construct a spheroscape representing the location of their sample on PLANET X. Then they prepare a navigation system to enable them to find other teams' samples on PLANET X.

Each team is paired with two other teams from other schools to form a three-team Pod. Each Pod is assigned a location on the planet which they reach by a "living shuttle," composed of team members, at the XPODition.

Pods convene on the final XPODition Day, set up their spheroscapes, and use their "living shuttles" to arrive on them. They perform experiments on each other's soil, air, and water samples. During lunch, teams submit only valid experimental data to Mission Control, tour neighboring regions, and vote on the critical issue: CAN WE INHABIT PLANET X?

Teacher training is held at Georgian Court College, Lakewood, NJ on November 16, 1994. Registration is required.

Costs: $90 per school. $10 per student (due December 2, 1994)

Contact: Judith E. Burr
Educational Information and Resource Center , 606 Sewell, NJ 08080, tel: +1 (609)582-7000 or

Pat Bruder at:
email: pbruder@pilot.njin.net

The CHATBACK TRUST PROJECTS

The Chatback Trust announces four projects for schools anywhere in the world. We particularly welcome schools or units for children with special needs.

Projects will run from September 1994. The following text is just a summary. For further information please write to the moderators or to the Director of Chatback, Tom Holloway (CAMPUS 01:CLK001, Internet t.holloway@warwick.ac.uk).

THE CORAL REEF PROJECT

Moderator - Nigel Palmer
Internet n.palmer@warwick.ac.uk

You are invited to join the CORALLIA Project being led by Jean-Louis Etienne, the famous French scientist/explorer. Jean-Louis is currently leading a team of scientists (biolo-gists, geochemists, sedimentologists and hydrologists) on an expedition to the South Seas. Their purpose is to study the ecosystem of the coral reef and to answer a number of questions such as:

- what are the levels and types of organic and mineral carbon in the South Seas?
- what are the levels of plankton in the study area and what role does plankton have in the ecosystem?

His findings, plus regular measurements of oceanographic and atmospheric data will be transmitted regularly on Campus 2000, on French Minitel and on the Internet during the Autumn Term (Fall semester). A comprehensive ship's log will also be available to you and your school.

On the way back, his ship the 'Antarctica' will follow the route that the famous explorers Dumont D'Urville and Charles Darwin took in the 19th century, which is the route that Magellan took 300 years before. You too may follow this with a copy of the GEOCLOCK program.

ACTIVITIES YOU CAN TAKE PART IN will include:-

- collect information about flora and fauna and sent by email and compare it with your local flora and fauna
- follow the course of the ship (and their adventures) on a map
- record and compare weather patterns of the ship with your own weather and that of other schools taking part.

For more details of this adventure, write to me (Nigel Palmer - n.palmer@warwick.ac.uk)

Teachers; for a copy of GEOCLOCK (IBM-PC shareware) or for classroom worksheets write to chatback@galviz.co.uk

THE VIEW FROM MY WINDOW

Moderator - Pat Davidson
Internet: davidson@warwick.ac.uk

Many times we look through our windows, but don't really see the view outside. Now is your chance to look carefully at what you can see, and to write and tell us about it. Each "view" will be shared with all participating in the project.
Your view would be different, according to the season, weather, or the time of day. You might like to tell us about the view during one season, or all of them. For example, here in the UK we're drawing near the end of our summer, and soon autumn (fall) will be here, yet it will soon be spring in Australia. Wherever you are in the world, your view will be different from that of anyone else.

Perhaps you don't like the view from your window, or have difficulty in seeing it? In that case, write and tell us what you'd LIKE to see.

A view could also be an opinion; you might like to look out at the world, and tell us about what you think of what is happening in the world today.

To subscribe to MY-VIEW on Internet, please send a message to:

listserv@sjuvm.stjohns.edu.

You don't need to put a title on the message, just send the text...

subscribe my-view your-first-name your-surname

If you have any problems, you can contact Pat Davidson at: e-mail: <p.davidson@warwick.ac.uk>

(Continued on page 23)

THE PASSPORT TO KNOWLEDGE PROJECT

PASSPORT TO KNOWLEDGE is electronic field trip to Antarctica that should enhance students' understanding and appreciation of the exciting world of science. "LIVE" satellite television programs linking America to Antartica will transport students to places where very few humans have been.

Made possible, in part, by the National Science Foundation, the National Aeronautics and Space Administration, and PBS K-12 Learning Services, PASSPORT TO KNOWLEDGE will help educators prepare their students for a virtual trip to Antarctica.

The project's central theme is the co-evolution of this unique continent, and the life-forms which have adapted to it, both the birds, plants and dinosaurs of ancient times, and the adventurous scientists and research teams of the present.

Classroom Activities

Background materials and hands-on experiments have been developed to help educators and students understand and explore the issues that attract scientists to Antarctica. A free 30+ page Teacher's Guide describes each program, suggests hands-on in-class activities appropriate for various grade levels, provides background on the Antarctic, short biographies of the researchers, information about how to get online, and "pointers" to the extensive resources to be found online, as well as copy masters of student handouts.

Network Learning

Online Computers and Network Learning will make it possible to develop a relationship with the scientists exploring Antarctica.

Network Learning opportunities include:

- ☞ using email or network tools to read electronic "Field Journals" written by researchers in the Antarctic and submitting questions to be answered by the Antarctic Research team.
- ☞ accessing weather and climate data
- ☞ searching a database (accessible through e-mail) providing an ever-expanding online "encyclopedia", more current than any other available, with the capability to answer automatically simple, factual questions.

The online materials to be available on the following networks:

- over the Internet via the server of the NASA K-12 Internet Project;
- via NASA Spacelink,
- over PBS ONLINE's Learning Link.

The "Electronic Field Trips"

LIVE FROM ANTARCTICA is a mini-series of 4 forty-minute live telecasts to be distributed by PBS on December 13th. & 15th. 1994, and January 10th. & 19th, 1995. The Programs will show Antarctica's unique status as a research site governed by international agreements and how polar research yields clues to the future of the entire planet. Students will discover:

- ☞ The geology, scale and climate of Antarctica, how it became the continent we see today and how researchers study its unique character.
- ☞ The biology of Antarctica, "then", through fossil remains of the days when much of it was tropical forest and dinosaurs lived here, and "now," featuring Emperor penguins above and below the ice.
- ☞ How astronomical research at the South Pole allows us to look back to the very origin of the Universe and an update on the most current research on the ozone hole.
- ☞ How Antarctica is a window on the future of Earth's climate, and how students can become more connected to research through telecommunications.

Each program will contain live segments in which students at various sites across America can engage in spontaneous interaction on camera with researchers in the Antarctic.

For Further Information

To receive more information on the PASSPORT TO KNOWLEDGE project online send an electronic message with one line of text to:

listmanger@quest.arc.nasa.gov

Leave the subject blank and put the following text in the message body:

subscribe updates-lfa

To request free print material by first-class mail, send a 9 by 12 stamped, addressed envelope bearing $2.90 in prepaid postage to

LIVE FROM ANTARCTICA
P.O.Box 1502, Summit, New Jersey
07902-1502

For further information about dates, times, satellite coordinates, and other components of the project, call 1-800-626-LIVE (after October 17th. only!)

[illegible]

[illegible]

Educators are busy people, and have little time, and even less opportunity to be adventurous and creative. There is too little tolerance by supervisors and parents for "experimentation" and departure from the recommended curriculum guidelines. It is no wonder that educators ask the questions, where can I find the successful networking project or how can I create a guaranteed successful networking project?

There are many enterprising companies and foundations that are now in the business of making "canned" successful networking projects. Some of these "canned" projects are quite good and can lead to a "successful" learning experience for many teachers and students around the globe. However, it is important to note the obvious to educators, beware of success stories because sometimes in your classroom replication proves otherwise. The best of the "canned" projects — such as those cited in this issue—are constructed to support individual teacher, learner, and classroom creativity, that is, the major learning choices are made by the teacher and learners and organizers simply facilitate interaction and provide a degree of opportunity otherwise not available.

In fact, whenever I'm asked these questions, I bite my tongue because my knee-jerk response is the most successful projects are those that arise from the creative interaction of a teacher and a group of students or student. Teachers like learners have different learning orientations and different interests, and it is very difficult for someone sitting in some lab far away from this classroom and teacher to create something for that unique context.

However, life would be chaotic if teachers spent every day "creating" some new project but the fact is that most teachers are pretty clever and often "create" wonderful projects for their classrooms, never even thinking about networking technology, that can be quite easily adapted to the network world.

My daughter's sixth grade team of teachers assigned their students the task of putting together a brochure about the U.S. states. The students could select any state and could draw a brochure with a crayon, pencil, or use a word processor. The only limitations were available tools and the creative impulse of the child. These sorts of assignments are wonderful because children can create as individuals even as they are conforming to outside limitations. True freedom is the realization of constraint, and so this degree of conformity does not destroy the individual and their capacity to create, learn, and explore.

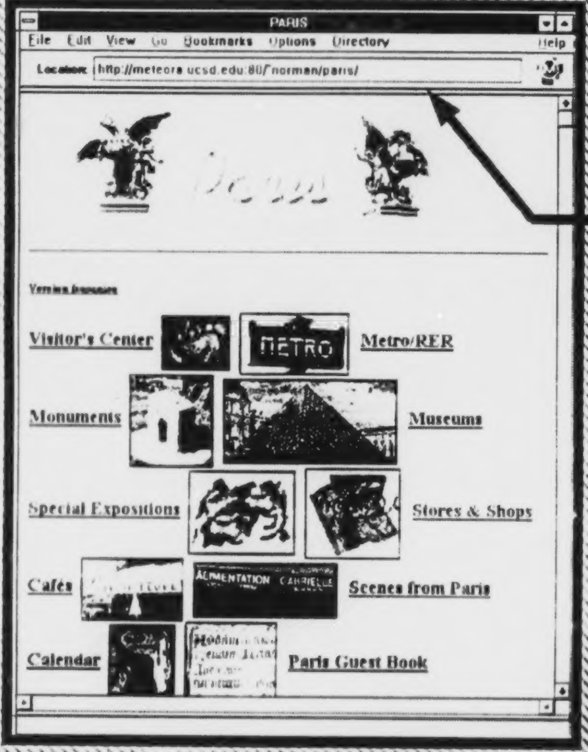
My daughter, unlike most of her classmates, had the benefit of an Internet connection that allowed her to navigate around the world looking for information on the state she chose. Had her class had an Internet connection, her teachers could have just as easily suggested this exercise as a class exercise with all the students, or at least a group taking turns doing various things. Some could do the research online and off-line, others could do the brochure layout online and offline, and others could do text editing, and others could be in charge of final product production. This does demand a degree of planning but again planning is something teachers do every day.

In middle school where there are thematic approaches to learning their are ample opportunities to direct student learners to use the networks to research and publish their research or ideas in a variety of forms. In high school where speciality is the rule of thumb, and students are fairly independent learners, there is more opportunity for individual learners to develop projects and for classes to participate in some major projects that use new capabilities previously not available to most high students such as the use of the supercomputing centers for modelling or for publishing online students newspapers or journals on a variety of topics.

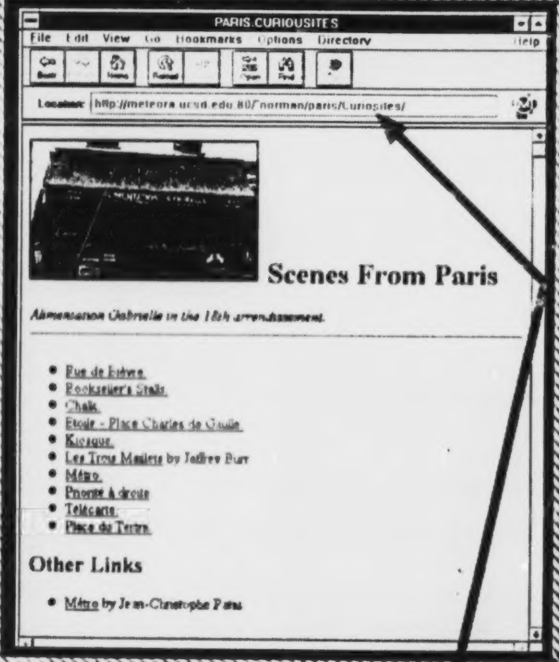
The KMR success list would be:

- ☞ Familiarize yourself with the networks and their capabilities. First, become a learner yourself, and the teacher in you will soon see the learning possibilities for the classroom.
- ☞ Look first at home for a successful project and ask yourself what excites and interests you and your students. If you are excited and engaged, then your students will be excited and engaged.
- ☞ Networking offers some new capabilities and potentials and it is important to keep this in mind when creating a project, most importantly, networks are *global* and allow global interaction; networks are *transparent* and allow users of all ages, classes, abilities, and genders to work together without the usual barriers; networks offer *a new window to the outside world for research* and for sharing and *publishing* learner products.
- ☞ Find another like-minded teacher or two on the networks to collaborate with create projects with; this need not be a solitary effort.
- ☞ Parents will likely become interested and encourage them to help.

Cyberspatial Outward Bound Journeys — Cities


PARIS
File Edit View Go Bookmarks Options Directory Help
Location: http://meteora.ucsd.edu:80/~norman/paris/
Versions françaises
Visitor's Center
METRO
Metro/RER
Monuments
Museums
Special Expositions
Stores & Shops
Cafés
ALIMENTATION GABRIELLE
Scenes from Paris
Calendar
Paris Guest Book

For a Tour of The City of Lights point to:
http://meteora.ucsd.edu:80/~norman/paris/


PARIS.CURIOUSITES
File Edit View Go Bookmarks Options Directory Help
Location: http://meteora.ucsd.edu:80/~norman/paris/Curiosites/

Scenes From Paris

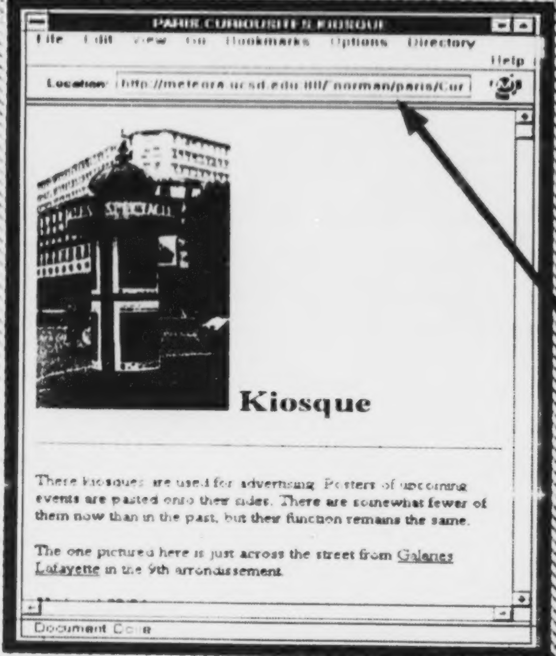
Alimentation Gabrielle in the 18th arrondissement.

- Rue de Bièvre.
- Bookseller's Stalls.
- Chalk.
- Etoile - Place Charles de Gaulle.
- Kiosque.
- Les Trois Maillets by Jeffrey Burr
- Métro.
- Priorité à droite.
- Télécarte.
- Place du Tertre.

Other Links

- Métro by Jean-Christophe Paris

For Scenes of Paris point to:
http://meteora.ucsd.edu:80/~norman/paris/


PARIS.CURIOUSITES.KIOSQUE
File Edit View Go Bookmarks Options Directory Help
Location: http://meteora.ucsd.edu:80/~norman/paris/Cur
Document Done

Kiosque

These kiosques are used for advertising. Posters of upcoming events are pasted onto their sides. There are somewhat fewer of them now than in the past, but their function remains the same.

The one pictured here is just across the street from Galeries Lafayette in the 9th arrondissement.

To learn about the Kiosques of Paris point to: http://meteora.ucsd.edu:80/~norman/paris/

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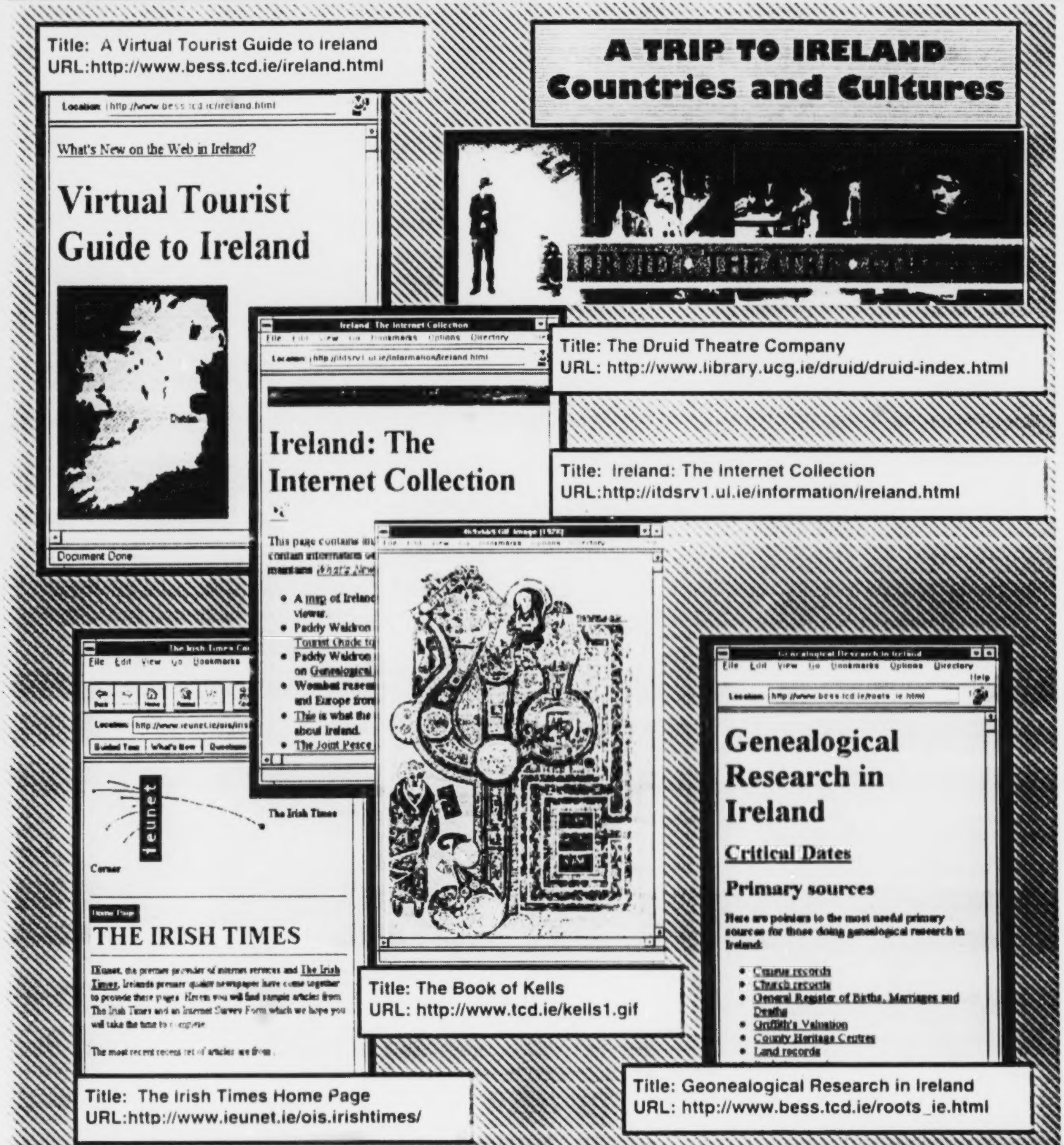
A TRIP TO IRELAND
Countries and Cultures



Title: A Virtual Tourist Guide to Ireland
URL:http://www.bess.tcd.ie/ireland.html

Location: http://www.bess.tcd.ie/ireland.html

What's New on the Web in Ireland?

Virtual Tourist Guide to Ireland

Document Done

Title: The Druid Theatre Company
URL: http://www.library.ucg.ie/druid/druid-index.html

Title: Ireland: The Internet Collection
URL:http://itdsrv1.ul.ie/information/ireland.html

Ireland: The Internet Collection

Location: http://itdsrv1.ul.ie/information/ireland.html

Ireland: The Internet Collection

This page contains mu
contain information on
maintains What's New

- A map of Ireland
viewer.
- Paddy Waldron
Tourist Guide to
- Paddy Waldron
on Genealogical
- Wombat resear
and Europe from
- This is what the
about Ireland.
- The Joint Peace

Title: The Book of Kells
URL: http://www.tcd.ie/kells1.gif

The Irish Times Co

Location: http://www.ieunet.ie/ois/iris

THE IRISH TIMES

IEunet, the premier provider of internet services and The Irish Times, Irelands premier quality newspaper have come together to provide these pages. Herein you will find sample articles from The Irish Times and an Internet Survey Form which we hope you will take the time to complete.

The most recent recent set of articles are from .

Title: The Irish Times Home Page
URL:http://www.ieunet.ie/ois.irishtimes/

Genealogical Research in Ireland

Location: http://www.bess.tcd.ie/roots_ie.html

Genealogical Research in Ireland

Critical Dates

Primary sources

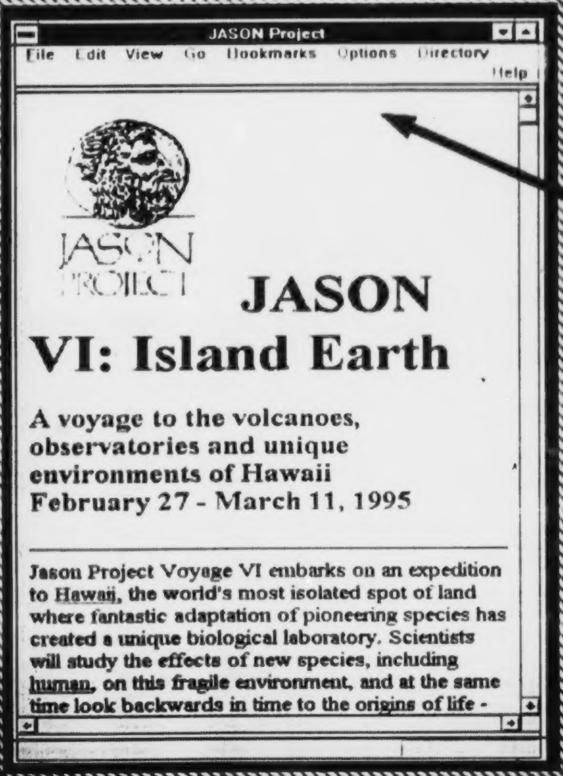
Here are pointers to the most useful primary sources for those doing genealogical research in Ireland.

- Census records
- Church records
- General Register of Births, Marriages and Deaths
- Griffith's Valuation
- County Heritage Centres
- Land records

Title: Geonealogical Research in Ireland
URL: http://www.bess.tcd.ie/roots_ie.html

Ever since the legendary voyages of St. Brendan, who is alleged to have discovered America, Irish people have acquired a reputation as indefatigable travelers. For over a thousand years, they have wandered the globe, more as crusaders and adventurers than as colonists.
"The Irish Mind Abroad: The Attitude and Experiences of the Irish Diaspora" by Hugh Garavan, Michael Doherty, and Aiden Moran published in The Irish Journal of Psychology, June 1994

Expeditions to Earth's Remote Places

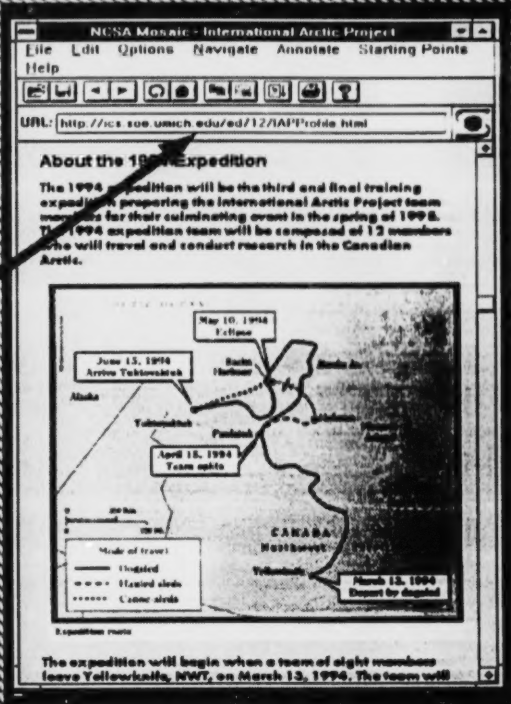

JASON Project
File Edit View Go Bookmarks Options Directory
Help
JASON PROJECT

JASON VI: Island Earth

A voyage to the volcanoes, observatories and unique environments of Hawaii February 27 - March 11, 1995

Jason Project Voyage VI embarks on an expedition to Hawaii, the world's most isolated spot of land where fantastic adaptation of pioneering species has created a unique biological laboratory. Scientists will study the effects of new species, including human, on this fragile environment, and at the same time look backwards in time to the origins of life -

Jason VI: Island Earth
Url:http://seawifs.gsfc.nasa.gov
/JASON/JASON6/JASON6.html


NCSA Mosaic - International Arctic Project
File Edit Options Navigate Annotate Starting Points
Help
June 15, 1994
Alaska
CANADA
Yellowknife
March 13, 1994
Mode of travel
Expedition route

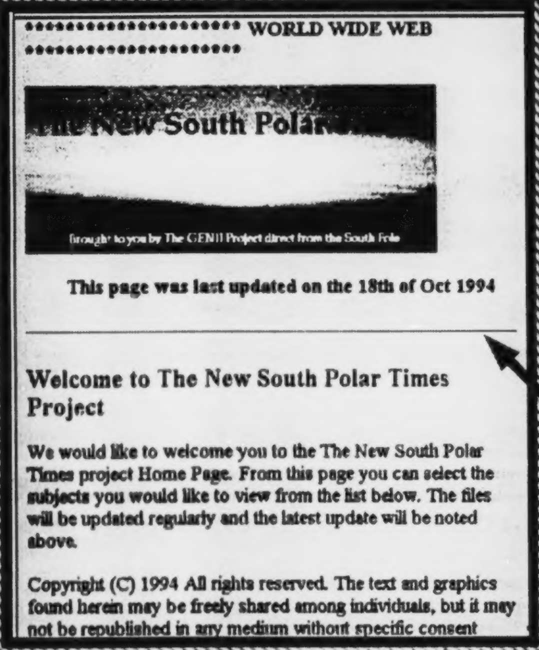
URL: http://ics.soe.umich.edu/ed/712/IAPProfile.html

About the 19[illegible] Expedition

The 1994 [illegible]pedition will be the third and final training expedi[illegible] preparing the International Arctic Project team me[illegible] for their culminating event in the spring of 1995. T[illegible] 1994 expedition team will be composed of 12 members [illegible]ho will travel and conduct research in the Canadian Arctic.

The expedition will begin when a team of eight members leave Yellowknife, NWT, on March 13, 1994. The team will

Title: The International Arctic Project
URL: http://ics.soe.umich/ed/ed712/IAPProfile.html/


********************* WORLD WIDE WEB *********************
The New South Pola
Brought to you by The GENII Project direct from the South Pole

This page was last updated on the 18th of Oct 1994

Welcome to The New South Polar Times Project

We would like to welcome you to the The New South Polar Times project Home Page. From this page you can select the subjects you would like to view from the list below. The files will be updated regularly and the latest update will be noted above.

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Title: The New South Polar Times. See p4 this issue of NetTeach News.
Url: http://www.deakin.edu.au/
edu/MSEE/GENII/NSPT/
NSPThomePage.html

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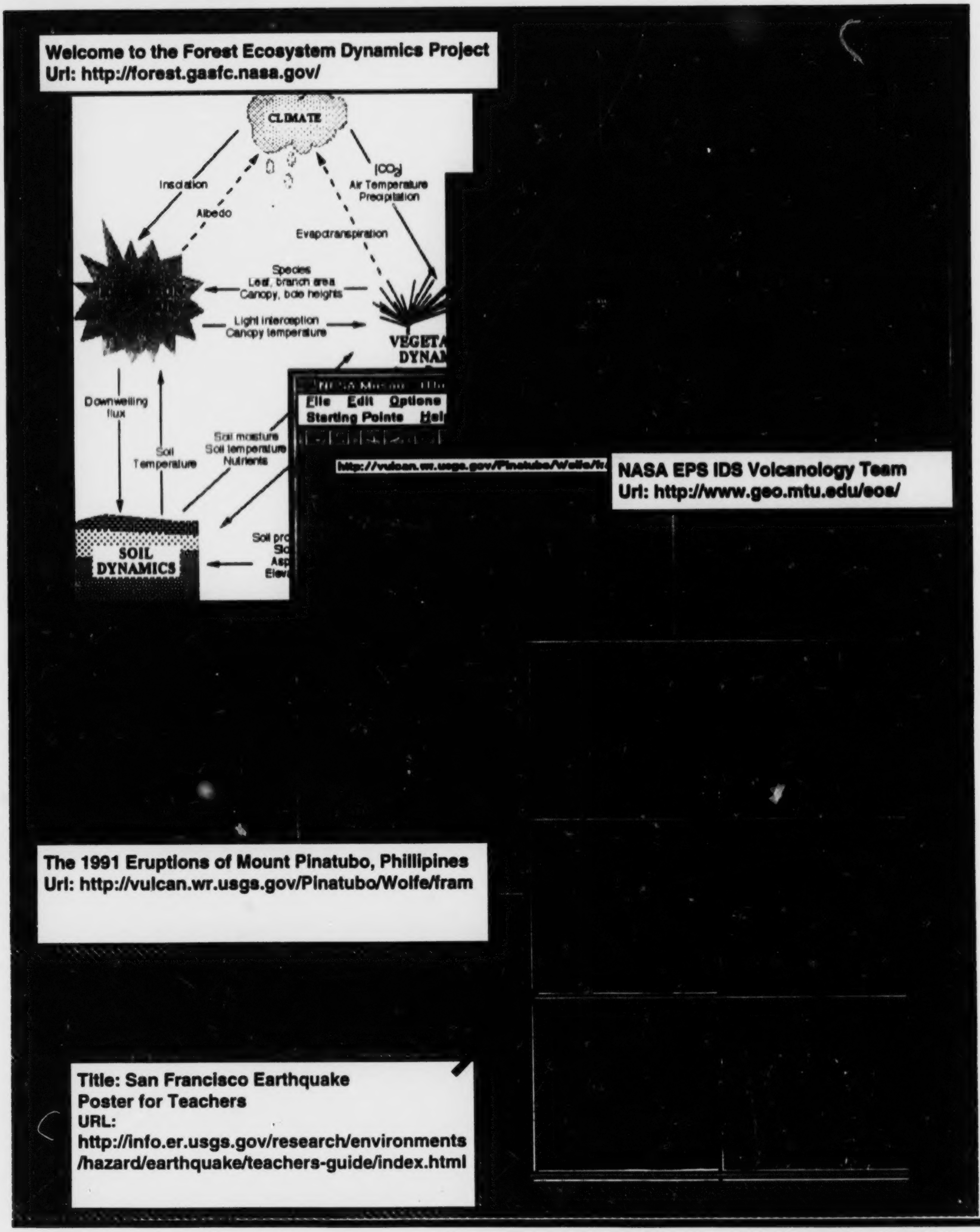

Welcome to the Forest Ecosystem Dynamics Project
Url: http://forest.gsfc.nasa.gov/

CLIMATE
Insolation
Albedo
[CO2]
Air Temperature
Precipitation
Evapotranspiration
Species
Leaf, branch area
Canopy, bole heights
Light interception
Canopy temperature
VEGETA
DYNAM
Downwelling flux
Soil Temperature
Soil moisture
Soil temperature
Nutrients
SOIL DYNAMICS
Soil pro
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Starting Points Hel
http://vulcan.wr.usgs.gov/Pinatubo/Wolfe/fr

NASA EPS IDS Volcanology Team
Url: http://www.geo.mtu.edu/eos/

The 1991 Eruptions of Mount Pinatubo, Phillipines
Url: http://vulcan.wr.usgs.gov/Pinatubo/Wolfe/fram

Title: San Francisco Earthquake
Poster for Teachers
URL:
http://info.er.usgs.gov/research/environments
/hazard/earthquake/teachers-guide/index.html

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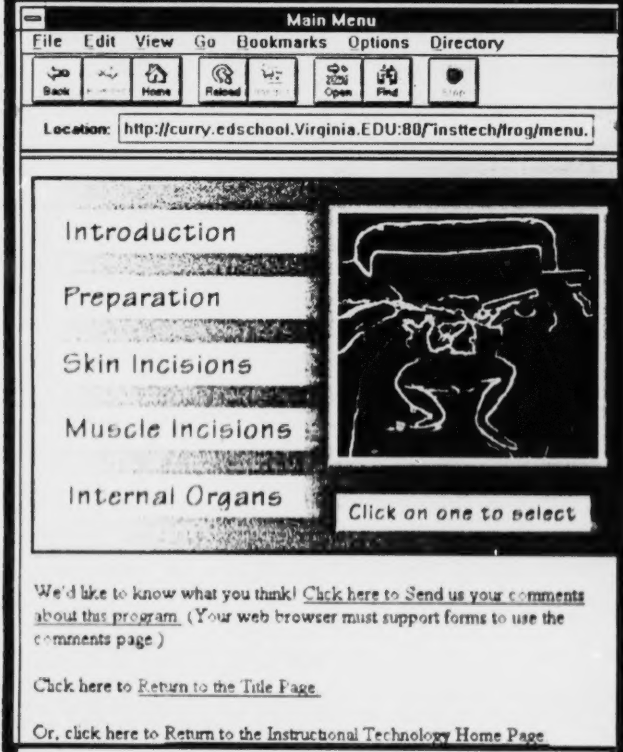

Main Menu
File Edit View Go Bookmarks Options Directory
Back Forward Home Reload Images Open Find Stop
Introduction
Preparation
Skin Incisions
Muscle Incisions
Internal Organs
Click on one to select

Location: http://curry.edschool.Virginia.EDU:80/~insttech/frog/menu.

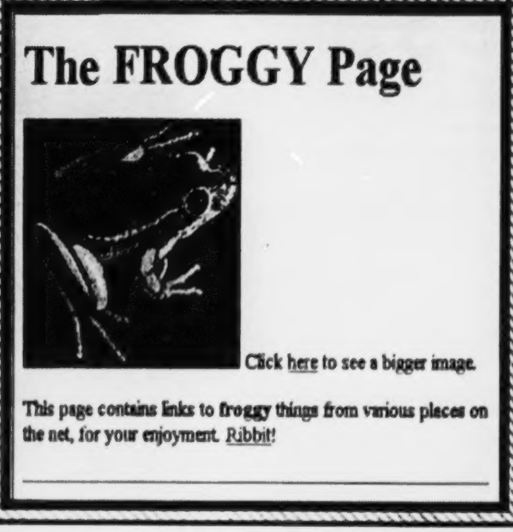
We'd like to know what you think! Click here to Send us your comments about this program. (Your web browser must support forms to use the comments page.)

Click here to Return to the Title Page

Or, click here to Return to the Instructional Technology Home Page

Title: The Frog Dissection
URL: http://curry.edschool.virginia.edu/~insttech/frog/home.html

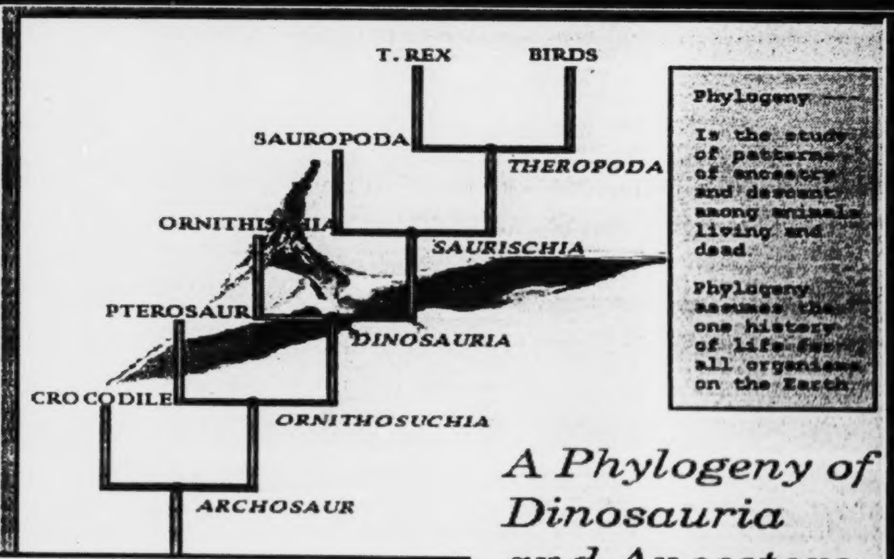
Explorations of Life — Extinct and Living


The FROGGY Page

Click here to see a bigger image.

This page contains links to froggy things from various places on the net, for your enjoyment. Ribbit!

Url:
http://www.cs.yale.edu/HTML/YALE/CS/HyPlans/loosemore-sandra/froggy.html


T. REX
BIRDS
SAUROPODA
THEROPODA
ORNITHISCHIA
SAURISCHIA
PTEROSAUR
DINOSAURIA
CROCODILE
ORNITHOSUCHIA
ARCHOSAUR

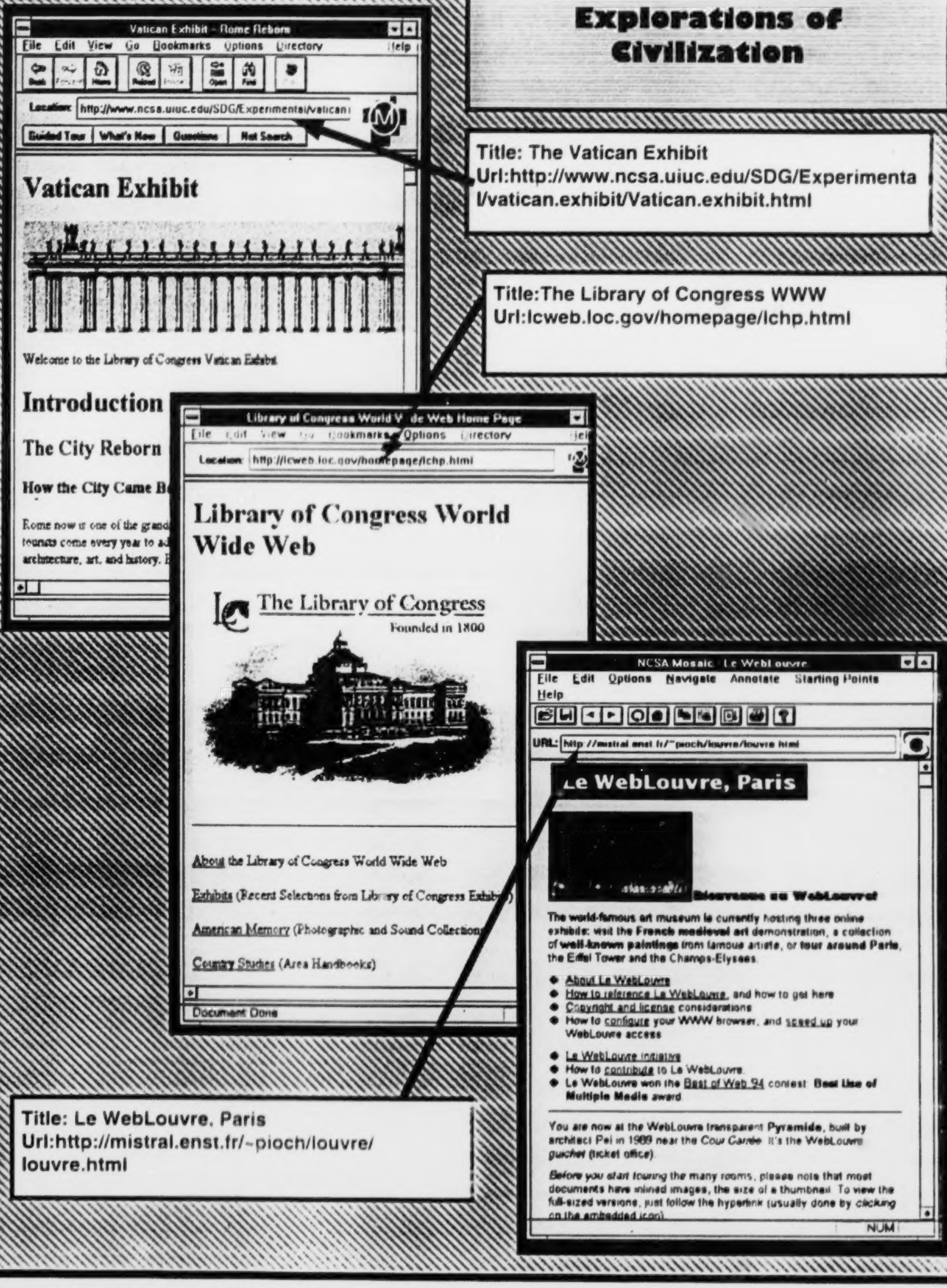
Phylogeny —
Is the study of patterns of ancestry and descent among animals living and dead.

Phylogeny assumes the one history of life for all organisms on the Earth.

A Phylogeny of Dinosauria and Ancestors

Title: Dinosaur Antechamber
URL: http://ucmp1.berkeley.edu/exhibittext/cladecham.html

Explorations of Civilization



Vatican Exhibit - Rome Reborn
File Edit View Go Bookmarks Options Directory Help
Back Forward Home Reload Images Open Find
Guided Tour What's New Questions Net Search
Library of Congress World Wide Web Home Page
File Edit View Go Bookmarks Options Directory Help
NCSA Mosaic - Le WebLouvre
File Edit Options Navigate Annotate Starting Points Help
NUM

Title: The Vatican Exhibit
Url:http://www.ncsa.uiuc.edu/SDG/Experimental/vatican.exhibit/Vatican.exhibit.html

Title:The Library of Congress WWW
Url:lcweb.loc.gov/homepage/lchp.html

Title: Le WebLouvre, Paris
Url:http://mistral.enst.fr/~pioch/louvre/louvre.html

Location: http://www.ncsa.uiuc.edu/SDG/Experimental/vatican

Vatican Exhibit

Welcome to the Library of Congress Vatican Exhibit

Introduction

The City Reborn

How the City Came B

Rome now is one of the grand
tourists come every year to ad
architecture, art, and history. E

Location: http://lcweb.loc.gov/homepage/lchp.html

Library of Congress World Wide Web

The Library of Congress
Founded in 1800

About the Library of Congress World Wide Web

Exhibits (Recent Selections from Library of Congress Exhib

American Memory (Photographic and Sound Collection

Country Studies (Area Handbooks)

Document Done

URL: http://mistral.enst.fr/~pioch/louvre/louvre.html

Le WebLouvre, Paris

Bienvenue au WebLouvre!

The world-famous art museum is currently hosting three online exhibits: visit the French medieval art demonstration, a collection of well-known paintings from famous artists, or tour around Paris, the Eiffel Tower and the Champs-Elysees.

- About Le WebLouvre
- How to reference Le WebLouvre, and how to get here
- Copyright and license considerations
- How to configure your WWW browser, and speed up your WebLouvre access

- Le WebLouvre initiative
- How to contribute to Le WebLouvre.
- Le WebLouvre won the Best of Web 94 contest: Best Use of Multiple Media award

You are now at the WebLouvre transparent Pyramide, built by architect Pei in 1989 near the Cour Carrée. It's the WebLouvre guichet (ticket office).

Before you start touring the many rooms, please note that most documents have inlined images, the size of a thumbnail. To view the full-sized versions, just follow the hyperlink (usually done by clicking on the embedded icon).

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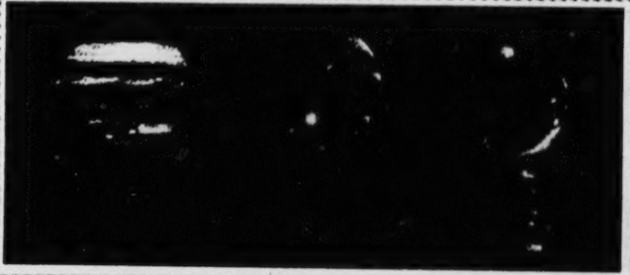
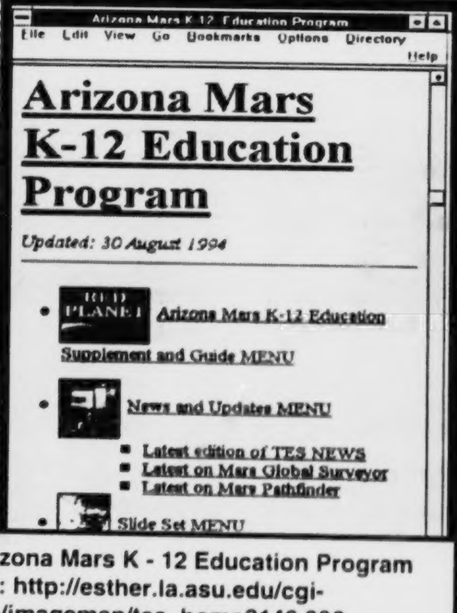
Explorations of Worlds Beyond

Clementine Mission Overview
http://clementine.sl.gov/



Shoemaker-Levy 9 Collision with Jupitar
Url: http://seds.pl.arizona.edu/S19/S19.html



Arizona Mars K-12 Education Program
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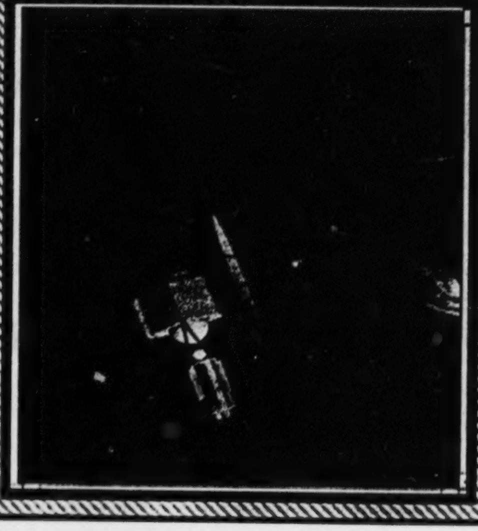
RED PLANET

Arizona Mars K-12 Education Program

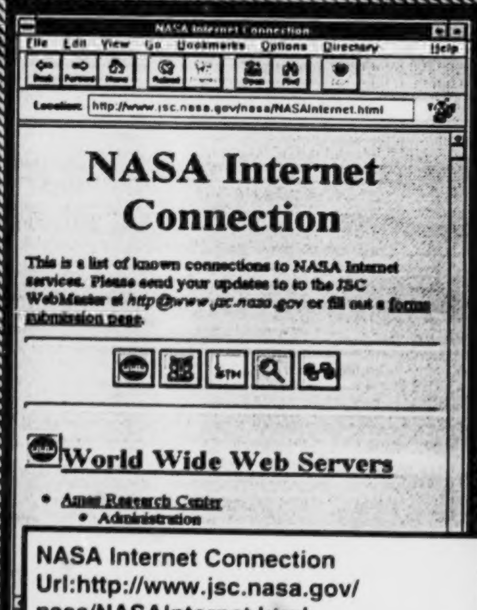
Updated: 30 August 1994

- Arizona Mars K-12 Education Supplement and Guide MENU
- News and Updates MENU
  - Latest edition of TES NEWS
  - Latest on Mars Global Surveyor
  - Latest on Mars Pathfinder
- Slide Set MENU

Arizona Mars K - 12 Education Program
Url: http://esther.la.asu.edu/cgi-bin/imagemap/tes_home?146,330



Arizona MArs K12 Education Program — Internet Links: Planetary and Space Science
Url: http://esther.la.asu.edu/asu_tes/TES_Editor/Links_2_Other_SiTES/Planetary_Links.html



NASA Internet Connection
File Edit View Go Bookmarks Options Directory Help
Location:

http://www.jsc.nasa.gov/nasa/NASAInternet.html

NASA Internet Connection

This is a list of known connections to NASA Internet services. Please send your updates to to the JSC WebMaster at *http@www.jsc.nasa.gov* or fill out a forms submission page.

World Wide Web Servers

- Ames Research Center
  - Administration

NASA Internet Connection
Url:http://www.jsc.nasa.gov/nasa/NASAInternet.html

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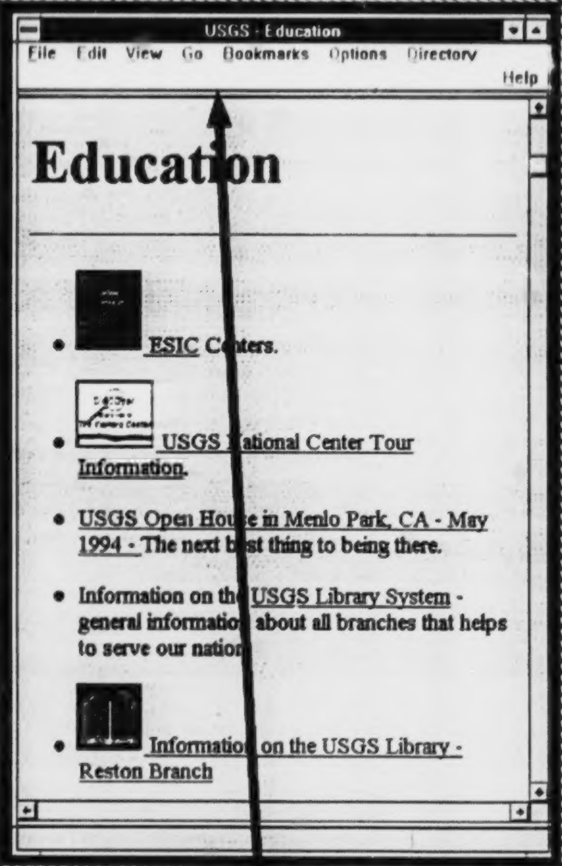
Good Sites for Main Camps

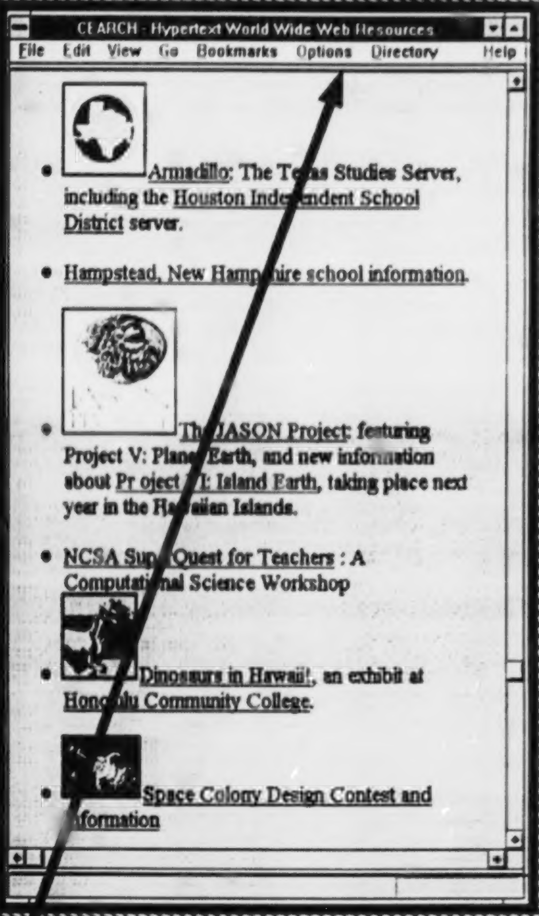
The School of Education in the University of Kansas has put together EXPLORER for the K12 set. The curriculum browsers are super. Point to Url: http://unite.tisl.ukans.edu/xmintro.html


USGS - Education
File Edit View Go Bookmarks Options Directory Help

Education

- ESIC Centers.
- USGS National Center Tour Information.
- USGS Open House in Menlo Park, CA - May 1994 - The next best thing to being there.
- Information on the USGS Library System - general information about all branches that helps to serve our nation.
- Information on the USGS Library - Reston Branch

USGS Education Page
URL: http://info.er.usgs.gov/education/index.html


CEARCH - Hypertext World Wide Web Resources
File Edit View Go Bookmarks Options Directory Help

- Armadillo: The Texas Studies Server, including the Houston Independent School District server.
- Hampstead, New Hampshire school information.
- The JASON Project: featuring Project V: Planet Earth, and new information about Project VI: Island Earth, taking place next year in the Hawaiian Islands.
- NCSA SuperQuest for Teachers : A Computational Science Workshop
- Dinosaurs in Hawaii!, an exhibit at Honolulu Community College.
- Space Colony Design Contest and Information

CEARCH-Hypertext World Wide Web Resources
Url: http://sunsite.unc.edu:80/cisco/web-arch.html

The Digital Calendar

November

3- 5 November **15TH ANNUAL INSTRUCTIONAL TECHNOLOGY CONFERENCE** at the Sheraton Tacoma, Tacoma, WA, USA. Hosted by the Instructional Technology Standing Committee of the Communications Technology Center of the Washington State Community and Technical Colleges. For information send e-mail to:

< institute@ctc.ctc.edu>

fax: (206) 881-4470
tel: +1: (206) 881-4409
snail mail: Communications Technology Center, 3860 - 159th Ave NE, #150, Redmond, WA 98052

3 November **MAINEducation '94, "Technology for Communications"**; Augusta, ME; The Maine Center for Educational Services; P.O.Box 620, Auburn, ME 04212-0620; tel. +1 207 783-0833.

3-5 November **"Horizons '94: Dealing Technology A New Hand"**; Vancouver, BC; Fall Conference of the Computer Using Educators of British Columbia (CUEBC), For more information contact: David Brear , 3049 Chaucer Avenue, North Vancouver, BC V7K 2C1 Canada; Tel: +1 604 436-1267; fax +1 604 434-1388; e-mail: <dbrear@cln.etc.bc.ca>

7 November **Research and Pedagogy in Cyberspace: A Conferencing Workshop for Teachers On Using the Internet.** Hosted by the Virtual Online University. Bonnie Bracey will be the keynote speaker.

All sessions will include both e-mail and interactive components; you will 'attend' from your home. For a complete list of the presentations, a schedule for the conference and registration information, send a request to:

wpainter@bigcat.missouri.edu

10-13 November **TEL Ed'94** Albuquerque Convention Center in Albuquerque, NM. This conference is one of the premier conferences for educators on distance education technologies, including networking for instructional purposes. Over 1000 educators, policymakers and resear-chers are expected to participate. For information contact: Lori Novak, ISTE, Tel Ed'94, 1787 Agate Street, Eugene, OR 97403-1923; tel: +1 503-346-2411; fax: +1 503-346-5890; e-mail: <Lori_Novak@ccmail.uoregon.edu>

December 1994

5-6 December **Libraries and the National Information Infrastructure**; Quality Hotel, Silver Spring, Maryland . Sponsored by CAPCON Library Network. A brochure with the program and registration information may be obtained by calling CAPCON at +1 202 331-5771 or by sending an e-mail message to: <niiconf@capcon.net>

February

7-11 February Texas Computer Education Association (TCEA) 15th Annual State Conference, Austin Convention Center, Austin, TX; Contact: Robert Knight, Executive Secretary, TCEA:tel: +1 800 282-8232; fax +1 806 799-0906; e-mail: knight@tenet.edu.

28-3/3 February ICTE Orlando '95, **"Leadership for Creating Educational Change: Integrating the Power of Technology";** Orlando, FL; Tom Sechrest, 12th International Conference on Technology and Education, The University of Texas at Austin, College of Education, EDB 518, Austin, TX 78712 USA; ph. 512/471-4080; fax 512/471-8786; E-mail: sechrest@mail.utexas.edu.

March 1995

22-25 March **SITE'95 6th International Conferene** in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: <AACE@virginia.edu>

June 1995

17-19 June **Emerging Technologies—Lifelong Learning, NECC'95** Baltimore, Maryland. For information contact: NECC'95 , ISTE, 1787 Agate Street, Eugene, OR 97403-1923. Tel: +1 503-346-3537, fax +1 503-346-3509e-mail : PD-KATZ@oregon.uoregon.edu

New Videos Released

THE NYSERNet PROJECT GAIN VIDEO: Connecting Rural Public Libraries

NSYERNET has released a new videotape about Project GAIN, which extended Internet access to five rural ew York State public libraries and one Indian Nation school.

The video documents the project from the first training meetings to site visits at all the libraries. The style is perfect for workshops introducing the Internet to librarians, or for anyone wondering how rural areas might benefit from a community Internet connection.

The printed Project GAIN Report, is bundled with the video and outlines the lessons learned from connecting; details critical success factors contributing to the overall accomplishments of the project; and offers a number of recommendations for public librarians, network service providers, policy makers, and researchers. Appendices include evaluation instruments, contracts, success stories, and more.
It runs 26:31 minutes, color, VHS and other formats available and includes the printed Project Report by Charles R. McClure, Waldo C.Babcock, Karen A. Nelson, Jean Armour Polly, Stephen R. Kankus

The cost is US $30.00 for NYSERNet affiliates (includes TRANSIT users) $40.00 others $75.00 if SECAM or PAL video format is required

Pre-payment required. Price includes shipping and handling in the US. Make check or money order payable to NYSERNet, Inc. Mail order to: NYSERNet, 200 Elwood Davis Rd., Suite 103 Liverpool, NY 13088-6147

Phone orders will be accepted with credit card purchase. More info: Call 315/453-2912, x221, or send email to info@nysernet.org.

Individuals may access an electronic version of the report that includes the text -- without figures and appendices-- through FTP or the gopher at NYSERNet, for any free educational purpose. Commercial use requires permission of NYSERNet. For FTP, FTP to nysernet.org, login as "anonymous," give your email address as password, Directory: pub/gain/final_report.

If you have gopher client software, point it at nysernet.org, port 70. The final report can be found in "Special Collections: Libraries/NYSERNet Project GAIN Rural Libraries/Project GAIN Final Report."

CONNECTING TO THE INTERNET — A Video by Eliot Christian of USGS

The U.S. Geological Survey has produced a video titled "Connecting to the Internet." It is released as a USGS Open File Report and all material contained in the videotape is in the public domain. Here's the citation:

OF 94-570. Connecting to the Internet, by E. J. Christian. 1994. One VHS videotape, approximately 45 minutes $20.00.

This training videotape provides information on how to get connected to the international network of networks called "the Internet." It is intended to help the viewer be aware of the complexities involved in shopping for the hardware and software products and services needed to connect to the Internet as a host computer in order to use powerful Internet client
software. The training is oriented toward those who need occasional access and will be using a personal computer with a dial-up telephone line and an inexpensive modem.

Copies of the tapes may be obtained by sending an order to:

Book and Open-File Report Sales
U.S. Geological Survey
Federal Center
Box 25286, MS 306
Denver, Colorado 80225

In the order, specify the Publication Series Number, Title, and Unit Price as follows:

Open-File Report 94-570, "Connecting to the Internet", Unit Price: $20.00

For each copy, specify the Quantity you wish to order and the Total Price (Quantity times Unit Price), then add 10% if first class delivery is desired, or 25% for transmittal outside the United States, Mexico, and Canada. Clearly indicate the Total Amount Remitted.

Payment in the form of check, money order, purchase order, or Government account, must accompany the order. Do not send cash. Drafts are to be made payable to "Department of the Interior - USGS."

Please note that these videotapes are distributed in the VHS NTSC format. Other formats, such as PAL or SECAM, can be produced by special arrangement.

MayaQuest, continued from p. 10

- contributed to the demise of the ancient Maya and how tribal warfare effects other civilizations ancient and modern. Upload pictures of any artifacts or glyphs supporting this theory

- Museums -- create an alliance with a local science museum or Maya Society. School Site Assignment: upload images and content available through the museum and their network of resources from other museums. Network with the Library Congress in Washington, D.C for images and information.

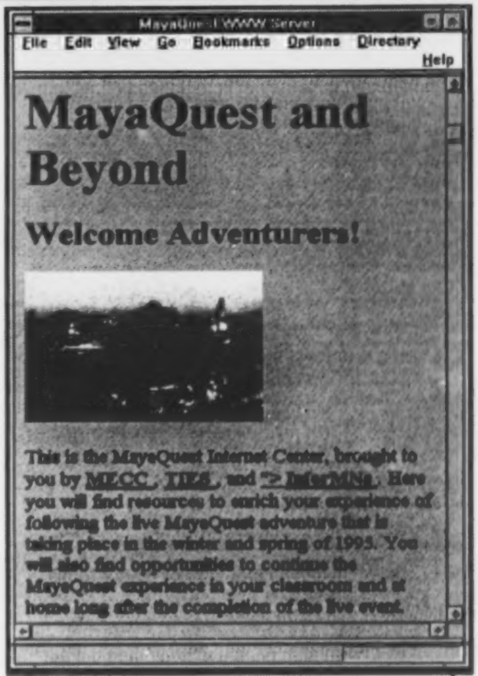
- Zoos -- create an alliance with a local zoo. School Site Assignment: upload images and content on plants and animals indigenous to Central America. Gather information on any endangered species living in the areas MayaQuest with go through.

- Related fields -- develop contacts through the Internet of Mayanists and experts in related fields (rock dr.s, paleontologists, astrologists(calendar)....) who will offer input on questions posed by archeologists. School Site Assignment: create data base of experts with their bios and current research project. During the expedition, connect the proper expert with the appropriate.

- Spanish -- Use MayaQuest as a tool to teach Spanish in the classroom. School Site Assignment:. moderate discussion forum and collect, develop and disseminate cirriculum materials from other online Spanish teachers.

- Other Civilizations -- research other civilizations whose rise to greatness or demise offers parallels to the history of the ancient Maya. School Site Assignment: upload information (bios on leaders, psychology of leadership and power...) which offer parallels and contrasts of today's society with that of the Maya.

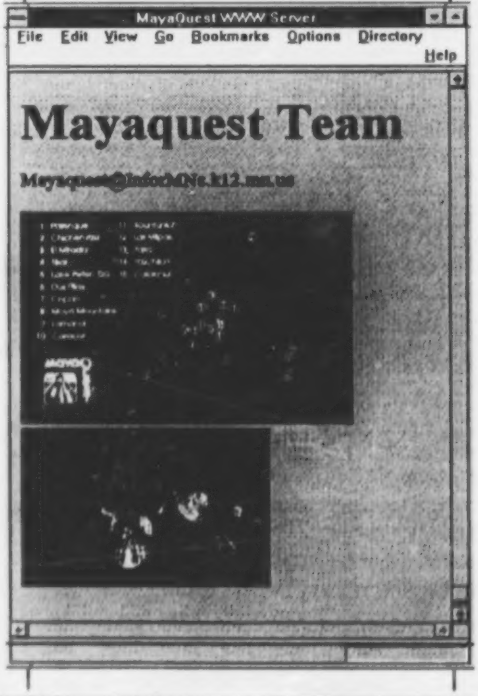
- Maya Math -- Maya calendar calculated the length of the solar year to within 17 seconds of the figure we come up with today using atomic clocks. School Site Assignment: upload fun and culturally rich activities for math lessons.



MayaQuest and Beyond

Welcome Adventurers!

This is the MayaQuest Internet Center, brought to you by MECC, TIES, and "> InforMNs. Here you will find resources to enrich your experience of following the live MayaQuest adventure that is taking place in the winter and spring of 1995. You will also find opportunities to continue the MayaQuest experience in your classroom and at home long after the completion of the live event.



Mayaquest Team

Mayaquest@InforMNs.k12.mn.us

- Images-- School Site Assignment: index related resource material, maps and photographs

- Archeology in the Classroom. -- School Site Assignment: upload material on using archeology in the classroom.

- Student Projects --School Site Assignment: compile and disseminate student products created around the Maya and the Maya-Quest expedition.

- Mapping --School Site Assignment: upload maps and mapping activities and related lessons

*Other suggestions.

Eligible sites must have access to the Internet either via dial-up access or a school district direct connection. Selected sites and the corresponding schools will receive appropriate credit for resources created. Also a package of incentives will be donated to each selected work site. (e.g. software, support materials, etc.). Selected Minnesota sites will receive an honorarium through funds made available through the Minnesota Department of Education. Via the Internet you can access Maya-Quest via:

Gopher:
InforMNs.k12.mn.us/K-12 Resources
or
World Wide Web:
http://InforMNs.k12.mn.us/mayaquest

Interested candidates should send a brief work plan (no more than a page) which describes the curriculum materials your site would develop as School Site Manager. Send e-mail to: **MayaQuest@InforMNs.k12.mn.us** or fax + 1 612-349-6584.

The CHATBACK TRUST PROJECTS, continued from page 11

MEMORIES

Moderator - Tom Holloway
Internet t.holloway@warwick.ac.uk

"Those who do not learn from the past are condemned to repeat it"; George Santayana.

Many of the young people who lived in the year 1944 and the last years of World War Two are still alive. Time has healed the wounds on both sides, but some of those survivors want to be sure that the lessons of the past will be learned by a new generation. The following people who lived in that time 50 years ago are available to share the experiences of their everyday life in the year 1944. Collectively, we are a living history book.

THE LAND GIRL - from University to hard labour as a Land Girl on a farm

THE BERLIN SCHOOLBOY - who survived the 1,000-bomber raids

THE LONDON SCHOOLBOY - during the blitz and the doodle-bugs

THE VIENNA SCHOOLGIRL - coping with discrimination under the Nazi regime

THE POLISH EXILE - deported as a slave-labourer at age 14

THE SURVIVOR - living through the hell of Auschwitz

THE LANCASHIRE SCHOOLBOY - a keen plane-spotter

THE AMERICAN SOLDIER - in England, waiting to go to war

THE CROATIAN SOLDIER - forced to fight for the Nazis, who survived the 'Croation Death March'

They will NOT be waving flags, or glorifying war. They WILL be paying testimony to those who quietly endured and sometimes lost on BOTH sides of the conflict.

We would like children everywhere to ask Senior Citizens who were alive during those years to tell their impressions and experiences and for students to send them to MEMORIES@sjuvm.stjohns.edu. First you will need to subscribe by sending to listserv@sjuvm.stjohns.edu just one line as follows...

subscribe memories your-first-name your-surname

Perhaps old friends will find each other again. Perhaps they will make new friends -- of a different age and a different country.

The project starts in January 1994 and will continue until the end of August 1995.

As part of this project we shall have regular online discussions on the St Johns University, New York, UNIBASE system. For further information please write to Tom Holloway at: e-mail: t.holloway@warwick.ac.uk or subscribe to memories@sjuvm.stjohns.edu

INTRODUCING FRIENDS

Moderator - Anne Pemberton
Internet apembert@pen.k12.va.us

An excellent first project for the new user. Students are paired and each student should write a formal letter ofintroduction about the other, to be sent to our friends abroad via KIDINTRO@sjuvm.stjohns.edu You should first subscribe by sending to listserv@sjuvm.stjohns.edu just one line as follows...

subscribe kidintro your-first-name your-surname

We recommend that your introductions should be about 30 to 40 lines long, and that they should follow this pattern:-

Paragraph One -- a brief description of your friend
Paragraph Two -- the interests/opinions of your friend
Paragraph Three -- an amusing story about your friend
Paragraph Four -- the strengths/talents of your friend.

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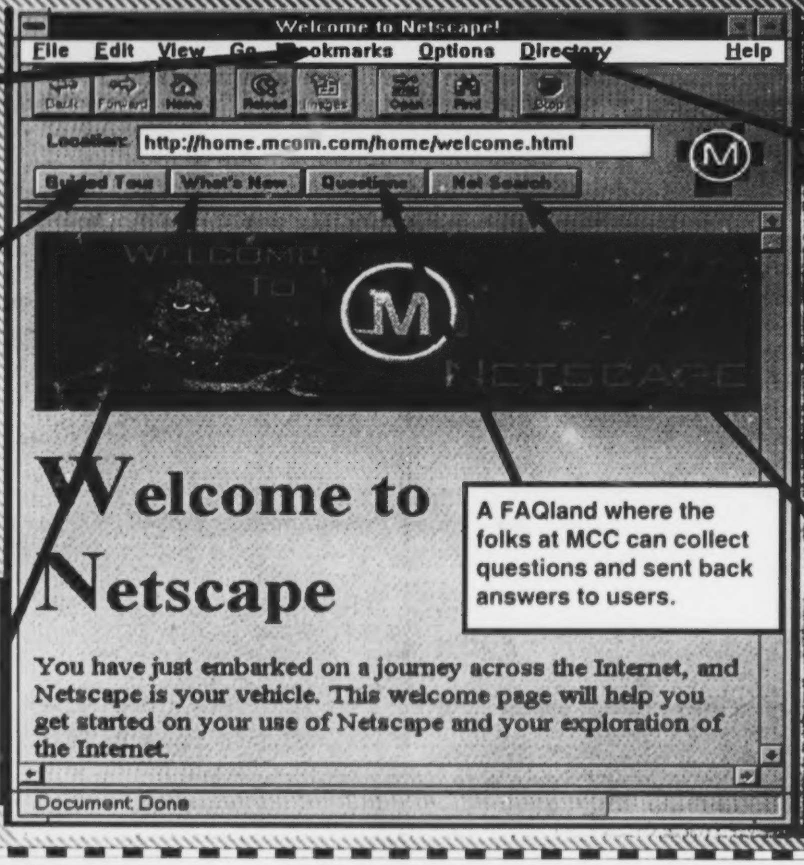
CHATBACK was set up in 1987 to provide an electronic mail (email) facility for up to 100 schools in the United Kingdom and abroad. Most are special schools, all cater for children with special needs.

CHATBACK is primarily for children with speech and/or communication difficulties. They are encouraged to form a school Chatback Club, and each Chatback Club is given a mailbox for use by the class or group of children. As wide a selection of young people as possible is included.

Projects encourage young people to correspond with each other for social interaction and, where a curriculum is being followed, for work on classroom subjects.

A "HOT" ITEM — NETSCAPE


Welcome to Netscape!
File Edit View Go Bookmarks Options Directory Help
Back Forward Home Reload Images Open Find Stop
Location: http://home.mcom.com/home/welcome.html
Guided Tour What's New Questions Net Search
WELCOME TO NETSCAPE
Document: Done

Welcome to Netscape

You have just embarked on a journey across the Internet, and Netscape is your vehicle. This welcome page will help you get started on your use of Netscape and your exploration of the Internet.

Really love the View Bookmarks Option — great for presentations.

This is the kind of guide I like—AN IDIOT's GUIDE. Thanks Marc.

A hot button to What's New in Mosaicland— tracked monthly.

There is a How to Create World Wide Web Services Section here for those of you READY to join the Net-Impressionists!

A FAQland where the folks at MCC can collect questions and sent back answers to users.

Click here and its off to a fantastic choice of the most powerful search engines now available such as WWWW, The WebCrawler, JumpStationII, WWW Nomad,

Mosaic Communications Corporation has released a public version of Mosaic Netscape 0.9 Beta available for anonymous FTP. Mosaic Netscape is a built-from-scratch Internet navigator featuring performance optimized for 14.4 modems, native JPEG support, and more.

You can FTP Mosaic Netscape 0.9 Beta from the following locations:

ftp.mcom.com in /netscape
gatekeeper.dec.com in /pub/net/infosys/Mosaic-Comm
lark.cc.ukans.edu in /Netscape
ftp.meer.net in /Netscape
doc.ic.ac.uk in /packages/Netscape
archie.au in /pub/misc/netscape
ftp.cica.indiana.edu in /pub/pc/win3/winsock/nscape09.zip (PC only)
mac.archive.umich.edu in /mac (Mac only)

Please make sure to read the README and LICENSE files.

An up-to-date listing of mirror sites can be obtained at any time by sending email to release@mcom.com.

Subject to the timing and results of this beta cycle, Mosaic Communications will release Mosaic Netscape 1.0, also available free for personal use via the Internet. It will be subject to license terms; please review them when and if you obtain Mosaic Netscape 1.0.

A commercial version of Mosaic Netscape 1.0, including technical support from Mosaic Communications, will be available upon completion of the beta cycle. Contact MCC at info@mcom.com for more information.

** Editor's Note — *This is fabulous and for any of you that are now using mosaic, I suggest you give NETSCAPE a try. It is fast, slick, and destined to emerge as one of the most popular software products. Great job and many accolades to Marc and the Gang at Mosaic Communications who developed this.*

[illegible]

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🗁🗁🗁 **Ways To Define User Expectations** by Bill Manning and Don Perkins, 13 pages, 10/12/1994

This is a new draft from the Internet School Networking Working Group of the IETF. It is available from the on-line Internet-Drafts directories.

The filename is : draft-ietf-isn-expectations-00.txt

This paper covers basic fundamentals that must be understood when one defines, interprets, or implements methods to control user expectations on or over the Internet.

As all Internet-Drafts, it is available by anonymous FTP. Login with the username "anonymous" and password "guest". After logging in, Type "cd internet-drafts" and then "get draft-ietf-isn-expectations-00.txt".

Internet-Drafts directories are located at:

US East Coast
Address: ds.internic.net
(198.49.45.10)

US West Coast
Address: ftp.isi.edu (128.9.0.32)

Pacific Rim
Address: munnari.oz.au
(128.250.1.21)
Europe
Address: nic.nordu.net
(192.36.148.17)

Internet-Drafts are also available by mail. Send a message to: mailserv@ds.internic.net. In the body type:

"FILE /internet-drafts/draft-ietf-isn-expectations-00.txt".

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📖📖📖 **The Mosaic Handbook for Microsoft Windows** by Dale Dougherty and Richard Koman, O'Reilly & Associates, Inc. Sebastopol, CA , 1994, 234 pages. ISBN 1-56592-094-5.

Also available for X-Windows and Macintosh. X-windows, ISBN 1-56592-095-3; and Macintosh, ISBN 1-56592-096-1.

The Mosaic Handbooks provide readers with an introduction to MOSAIC , and how it can be used to replace some of the traditional Internet functions like FTP, Gopher, Archie, Veronica, and WAIS. Advanced users are acquainted with information on how to add external viewers to Mosaic and how to customize the Mosaic interface. The Mac and Windows versions come with a copy of Mosaic on a floppy disc; the X windows comes with a CD-ROM.

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📖📖📖 **Navigating The Internet** by Richard J. Smith and Mark Gibbs. SAMS Publishing, 1994, 640 pages. ISBN 0-672-30485-6.
Lots of good information on just about everything you might want to know. Written in an easy-to-read style with lots of examples. Contains a disk with a special collection of PC windows software including, Chameleon Sampler from NetManage, HGopher, UUCode, a directory of Internet mailing lists, a listing of newsgroups, and a director of listserv mailing lists. (Disc also available for macintosh)

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📖📖📖 **The Internet For Everyone—A Guide for Users and Providers** by Richard W. Wiggins. McGraw-Hill, Inc.1995, 655 pages.

Wiggins covers the basics and then much more. He provides much useful background information such as an overview of the Internet, a discusision of the Client/Server Model, the TCP/IP Protocol Family, Real-Time Communications on the Internet, and the future of the Internet.

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🗁🗁🗁 **"The HEL Educator's Guide to the Internet"** by Mark Posner. The Harvard Education Letter, Supplement to Vol. X, No. 5 (Sept/Oct 1994), pp 1-4.

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🗁🗁🗁 **"The (Second Phase of the) Revolution Has Begun,"** by Gary Wolf. Wired, October 1994, pp. 116-121,150-152.

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🗁🗁🗁 **"Your Company's Most Valuable Asset: Intellectual Capital,"** by Thomas A. Stewart. Fortune, October 3, 1994, pp 68-74.

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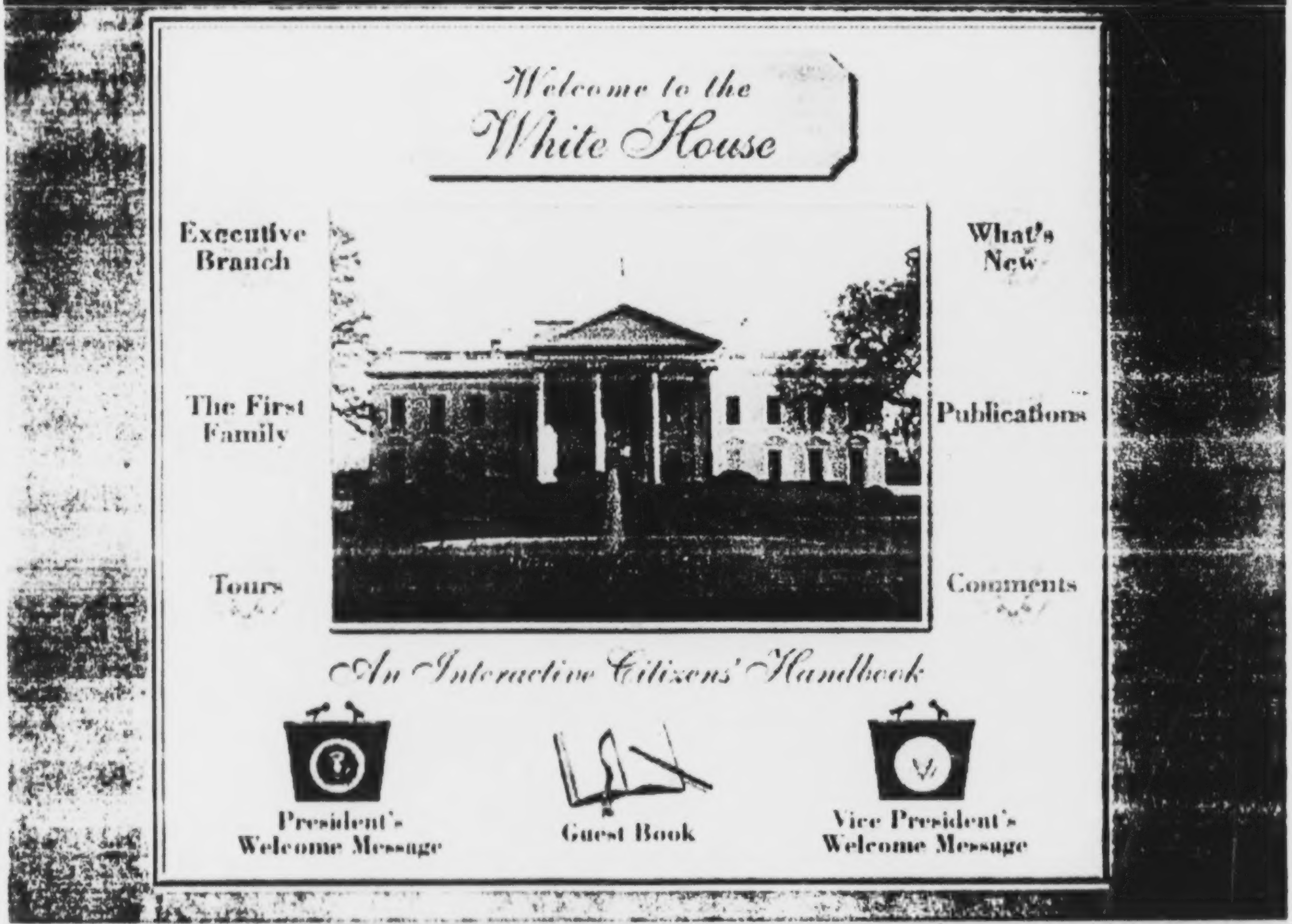
VISIT THE WHITE PAGES –
POINT TO URL: www.whitehouse.gov


Welcome to the
White House
Executive Branch
What's New
The First Family
Publications
Tours
Comments
An Interactive Citizens' Handbook
President's Welcome Message
Guest Book
Vice President's Welcome Message

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new 'networlds' for educators around the globe and a pathway to many *global living learning villages.*

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Send submissions and subscription queries to:
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email address: <info@netteach.chaos.com>

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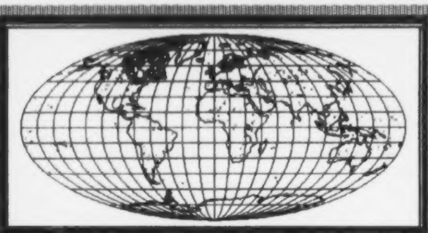
ISSN 1070-2954

NetTEACH NEWS

Volume 2, No. 6 | The Newsletter for K-12 Networking Educators | November 29, 1994

The Internet — A World of Horizontals

by Kathy Rutkowski



Xerox Parc Map Viewer—Global View

Recently, it occurred to me that the so-called Internet Revolution is a horizontal revolution. Unlike other major historical revolutions, this is not about magma erupting to the surface of the volcano and blowing off its top, but is about people reaching across vast horizontal distances to communicate, to connect, to collaborate, and to define common agendas.

It is difficult to think horizontally because vertical thought has dominated human civilization since Moses first climbed Mount Sinai to receive the Ten Commandments from God. Man has been climbing ever since, and when he is not climbing, he is erecting temples and skyscrapers that soar to the sacred heights.

The world of vertical is a very competitive world. It is a world where people are struggling to get to the top and to leave the "undistinguished" and "unremarkable" masses behind, where communications is highly controlled primarily by those who are in power, and where collaboration is a perplexing thought.

The world of vertical is like a pyramid with a very small top and a very large bottom. Those on the top know they are on the top and do just about everything they can to stay there. Those on the bottom feel the pull of gravity on the surface of the earth and the depths of society and do everything they can to claw their way up or forget where they are.

The Internet welcomes us all to the world of horizontal, and to the world of horizontal thought. This world has always existed but mostly as a place for those who have rejected the dominant philosophy and have followed a different drummer — the drums of the tribal village.

Today, the drums of the tribal village cannot be dampened, and even those standing on the

(See TRIBAL DRUMS next page)

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(TRIBAL DRUMS , *Continued from page 1)*

summits of the mountains can hear their warning. The time has come for people around the world to come together to solve our common global problems. The time has come to collaborate, to communicate, to connect with other thinkers, dreamers, and global citizens.

The children of today hear this music and are following the advice of wise elders to communicate their thoughts and feelings to each other over expansive global networks. Every day they reach out and touch yet another villager, and in the I*EARN , CHATBACK, GLOBAL HANDSHAKE, and GLOBAL SCHOOLHOUSE PROJECTS they are defining a new world and a new world order — a GLOBAL WORLD.

There are mountains in this world and there are skyscrapers, and yet from the perspective of a global citizen, the most important line is the horizon.

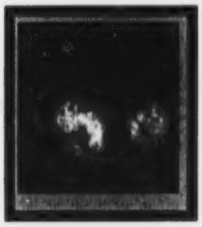
LFC
Boston, MA Oct. 84

BOSTON, Massachustetts taken from NASA SPACE SHUTTLE OBSERVATORY PROGRAM
http://sun1.cr.usgs.gov/glis/hyper/guide/shuttle

Every day is a new beginning, and every sunset an ending. This is a multidimensional and multidisiplinary, multicultural, and truly multinational world view, and a view that above all else celebrates life, the potential of man to do good, and the uniqueness of Spaceship Earth.

There are still those who believe that the world of horizontal is a delusion or an illusion at best. They prefer to take their photos from the land pointing upward. To them, the world of horizontal is frightening because it is a world that asks them to connect across vast distances for the sole purpose of communicating with another living being.

The horizontal world is the world of Db minor, it is the howl of the timber wolf, the call of the sperm whale, and the song of the tribal singer calling all living things to come to the fire to share stories not about fame and fortune but about life and the struggle for life.



InforMNS Wolf Study Project —
http://informns.k12.mn.us/wolf.html

The Internet is not a tangled mass of wires, silicon wafers, fiber optics, metal boxes but is people reaching across the vast distances of time, space, generations, and even death itself for one purpose—survival. On these global networks, the messages you will hear louder than any others are those that define a new agenda for a new generation of leaders to come.

Listen to the sound of your fingers keystroking in words — it is the sound of Db minor. Your words do not soar like an eagle to the summit of the mountain but travel across great distances to the most magnificent place of all—the mind and heart of another human being. Together you will define a new vision, a vision for the generations that will follow, a vision not of conquest and conflict but of cooperation and communication. It is the song of Mankind, and it is a most magnificent song

Editor: Kathy Rutkowski

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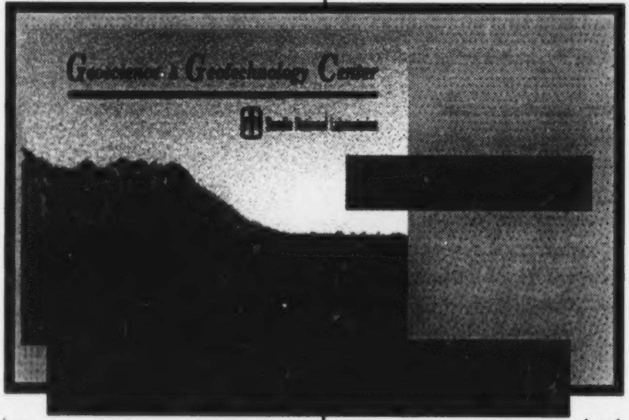
Tel-Ed'94 — A Vision Quest

by Kathy Rutkowski

Last year, a small contingent of internetworking educators and activists came to Tel-Ed'93 in Dallas in search of information and compatriots. We went home content. This year, a larger contingent of internetworking educators and activists came to Albuquerque, New Mexico for four days in November to attend Tel-Ed'94. Once again the International Society for Technology in Education put on a conference that satisfied our unspoken desires.

The themes of this year's Tel-Ed'94 were **Communication, Community, Collaboration, and Connection,** and those themes did define the occasion and indeed define the essence of educational networking. Aboveall else, Tel-Ed'94 and educational networking was about people networking, people connecting, people coming together to communicate and to collaborate, and people defining collective visions.



Albuquerque is one of the most beautiful places in the world, and it was a humbling and uplifting experience to behold the Sandia Mountains which rise majestically above the city of Albuquerque. No wonder Native Americans considered these mountains sacred places, and no wonder young Native Americans would go to those mountains on "Vision Quests." When the young seekers had successfully communicated with the spirits, they would draw their vision onto stones.

At Tel-Ed'94, many of us who came also undertook our "Vision Quests" as individuals and as a community. We spent many hours together, huddled in the hallways and hotel lobbies, communicating what was happening in schools across the globe and brainstorming how the process can be accelerated and improved. Those moments, more than the many excellent workshops and sessions, were the defining moments.

At Tel-Ed'94, a new clarion call was issued loudly and clearly. Educational networking has entered a new phase. We are moving towards the most difficult aspect of all — community building and collaborations for change. Our collective vision quests will be written on the networks.

Those who have spearheaded this movement to bring networking to schools are witnessing the fruits of their labor as the numbers of networking educators and the number of connected schools grows, and yet there is deep dissatisfaction in our ranks. We understood all along that the mere deployment of technology was not the same as its diffusion, but somehow we had hoped that the revolution would be faster and that resistance to change would be less formidable. Now we accept that the real revolution is ahead of us and that as some barriers to change are falling others are being erected.

In Albuquerque, the critical question was, "What is an optimal strategy for change?" I cannot tell you all the answers I heard or even co-formulated, but I can tell you that during those four days in New Mexico there were many strategies devised and revolutionary cabals formed.

It is clear that the grassroots efforts will be the most powerful and will spearhead the next phase of this revolution, and that the issue of teaching and learning will be raised in a larger context than schools and school systems. Moreover, despite the good intentions of the Clinton administration to define an NII (National Information Infrastructure) or a GII (Global Information Infrastructure) Washington's vision is limited, and the defining vision is that of the people in virtual communities around the globe whose slogan is, "Ask not what your world can do for you, ask what you can do for your world."

The stakes are higher and it is no longer one learner, one teacher, one school, or one nation but rather the whole world of learners, teachers, schools, and nations. Global networks have made us one people and have shown us that there can be such a thing as a global education system, a global teacher, a global learner, and a global citizen. It is time now to fulfill our generational vision quest with the quiet courage and steadfast determination of a brave warrior.

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

K- A- GEOLOGIST – US Geological Survey Offers A New Internet Service

Why does California has so many earthquakes, and New York does not? Why is there so much oil in Texas, but not in Wisconsin? What are the deepest canyons in the United States? These are the kinds of questions that students can pose to a US Geological Survey Geologist.

On October 4, 1994, the USGS launched a new, experimental Internet service entitled, Ask-A-Geologist. General questions on earth sciences may now be sent by electronic mail to the Internet address:

ask-a-geologist@octopus.wr.usgs.gov

All electronic mail to Ask-A-Geologist will be routed to the geologist of the day. The geologist will reply to your question within a day or two, or provide referrals to better sources of information. Please include an Internet-accessible return address in the body of your message.

Ask-A-Geologist is an experimental service of the USGS Branch of Pacific Marine Geology, with participation from several other branches. The United States Geological Survey is the principal source of scientific and technical expertise in the earth sciences within the Federal Government.

All classes of questions cannot be answered. Questions about specific sites such as, for example, "Is my home in a landslide area?" will not be answered. Nor will answers to questions with a specific economic impact be answered, such as, " How much gold is left in the Homestake mine? " Commercial products or companies will not be endorsed, and questions based on information not yet released to the public will also not be answered.

All questions and answers will be part of the public record. After collecting questions and answers for a few months, we will make a Frequently Asked Questions list (with answers) available via anonymous FTP and World-Wide-Web.

Grade school and high school students with electronic mail access are invited to send in questions but reminded that the USGS geologists will not be writing your reports for you!

If you have any questions about this service, but not about geology, please contact Rex Sanders, the system administrator, at:

<rex@octopus.wr.usgs.gov>.

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Ask Dr. Math

Dr. Math and members of "The Swat Team," math students and professors at Swarthmore College are ready, willing, and waiting to receive math questions from elementary, middle, and high school students.

If you are a student in elementary, middle, or high school, write to write to:

dr.math@forum.swarthmore.edu

and The Swat Team will answer your questions, and give you some problems to solve.

Ask Dr. Math is a project of the GEOMETRY FORUM, an NSF-funded program housed at Swarthmore College in Swarthmore, Pennsylvania, USA.

For more information about The Geometry Forum, point to URL: http://forum.swarthmore.edu/index.html

INFOBYTES

A Call for Nominations for the NII Awards

The National Information Infrastructure (NII) Awards will recognize individuals, organizations and businesses that have achieved concrete gains through use of the "information highway". The Awards are sponsored by more than 50 industry and community leaders in cooperation with the Clinton Administration's Information Infrastructure Task Force.

The purpose of the Awards is to:
- build awareness of people can use the NII to improve their lives, communities and businesses (i.e., it's more than "500 channels").
- encourage broad and beneficial use of the NII.

The NII Awards will be given in six categories: arts & entertainment, business, community, education, government and health. Price Waterhouse will oversee and verify the judging process.

WINNERS
Winners will receive national recognition for their achievements at an awards ceremony in Washington in the spring of 1995 and will be featured in a national education program. All entries will become part of a database to provide people with examples of how they can use and benefit from the NII.

BACKGROUND
The NII Awards were created by Access Media Inc. as part of the National Infostructure Campaign -- a public education initiative to accelerate development and use of the NII.

FOR MORE INFO
Copies of electronic documents are available by sending email to info@niiawards.org (include "subscribe" in the body of your message). Hard-copy Entry Kits are available by calling + 1 (313) 453-9137.

USGS offers Training material on the World Wide Web and Mosaic

The U.S. Geological Survey is offering acess to a workshop which is intended to give participants an overview of the WWW and Mosaic from the perspective of a Federal agency presenting itself electronically. You will have the resources through materials presented on the WWW to construct your own training course for others in your agency

This is an excellent resource brought to you by the USGS and special accolades to Joann Miller. Joann is a Volunteer for Science at the US Geological Survey, and the creator of the workshop page and many of the USGS web pages. She is a dynamic lady and a great workshop presenter so take advantage of this opportunity and point to URL:

http://info.er.usgs.gov:4444/train

If you have any questions on this material, or please send them to:

webmaster@www.usgs.gov

Joann Miller
Volunteer for Science
U.S. Geological Survey
http://www.usgs.gov

(Volunteers lke Joann Miller are making a significant contribution to the educational networking community, and often they do not receive the thanks they rightfully deserve. I urge all of you who use this training workshop material or visit the USGS home and educational pages, to take a minute to send a note of thanks to Joann for all her hard efforts to bring quality information to the educational community via the Internet. THANKS, Joann. kmr)

Edulists

THINK-L is an unmoderated, open forum for educators and others interested in fostering **critical thinking** in and out of the classroom.

THINK-L provides both a place and a space for their thoughts, concerns, and successes about the challenges they face.

To subscribe, send a message to:

LISTSERV@UMSLVMA.UMSL.EDU

Leave the "Subject" line blank, and in the body of the message, type:

SUBSCRIBE THINK-L

Instructions on modifying settings, unsubscribing, and other listserv commands will follow.

THINK-L is a completely automated, self-archiving listserv maintained at the University of Missouri-St. Louis.

COMLIB-L is a discussion list for individuals who have something to say about **communication librarianship or libraries** (and reading rooms). The term communication is meant in the broad sense to include journalism, telecommunications, advertising, communications, etc. The forum is open to the discussion of all library topics --cataloging, holdings, organizations, electronic sites, or even the types of shoes communication librarians wear.

To subscribe send e-mail to

LISTSERV@UKCC.UKY.EDU

In the main body of the message write:

SUB COMLIB-L Yourfirstname Yourlastname

The Listserv owner is Reinette F. Jones
jones@ukcc.uky.edu>

TCC-L - is an electronic forum for community college teachers. Each month, a discussion question or theme will be posted. To subscribe, send a message to:

LISTSERV@UHccVM.UHcc.Hawaii.Edu

Leave the "Subject" line blank, and in the main body of the message write:

sub TCC-L YourFirstName YourLastName

Listowner: Jim Shimabukuro
JamesS@UHunix.UHcc.Hawaii.edu

LOGO-L is a new listserv managed by The Logo Foundation, in cooperation with the Global SchoolNet Foundation.

The objectives of this Logo discussion group are to:

- ☞ Promote active sharing of ideas among Logo using educators.
- ☞ Provide a forum for questions to be asked about using Logo in the classroom. This could be of service to both experienced and novice Logo educators.
- ☞ Provide a meeting place for Logo educators interested in collaborating on telecomputing projects involving their students sharing Logo creations.
- ☞ Provide a forum for discussion of educational philosophy on the use of technology in education and how Logo fits into that philosophy.

To subscribe send a message to:

majordomo@acme.fred.org

Leave the "Subject" line blank, and in the main body of the message write:

subscribe logo-l

Edulists

INCLASS is a moderated Internet discussion list about using the **Internet in the classroom.** It is a research tool for educators, scientists and education sector marketers. It is also designed to provide interactive hands-on help for Internet newcomers, with plenty of resource pointers. Above all, INCLASS promotes the use of the Internet as a means to keep students interested in life-long learning, focusing on adapting successfully and creatively to change, concentrating on aiming for personal excellence.
To subscribe, send a message to:

listproc@schoolnet.carleton.ca

Leave the "subject" line blank, and in the body of the message write

subscribe INCLASS (yourfirstname yourlastname)

You will immediately be added to the INCLASS list and will receive further user-friendly information on how to use the INCLASS list commands.

The listowner is Doug Walker
<dewalker@schoolnet.carleton.ca>

CED-NET is an unmoderated discussion list for anyone interested in trends, opportunities and changes in community economic development. The focus will be on what communities can do for themselves in terms of achieving access to knowledge, programs, markets, and funds.

TO SUBSCRIBE send an e-mail message to:

majordomo@sfu.ca

Leave the "subject" line empty, and in the main body of the message write:

subscribe CED-NET

Once subscribed send messages to the list at:

CED-NET@SFU.CA

CPSR-GLOBAL *is a moderated Listserv for* uniting people all over the world who want to talk about:

- decisions the USA will make on the information infrastructure,or NII, that will affect the rest of the world
- issues of national identity, "cultural pollution," and international communication and the GII (Global Information Infrastructure)
- the new emerging GII world culture
- international issues of security and privacy and computer law
- international issues of computer development (keyboards, safety)
- issues of design
- language

To join this discussion list, send a message to:
listserv@cpsr.org

in the main body of the message write:

SUBSCRIBE CPSR-GLOBAL Firstname Lastname

GLBL-HS is a list for students and teachers of global studies or world cultures. This list is designed for discussion of world cultures, and events as well as a possible tutorial where help and information ranging from home work to lesson planning may be exchanged. In addition, possible world links or cross country links for students and teachers may develop.

To subscribe to GLBL-HS, send a message to:

listserv@ocmvm.onondaga.boces.k12.ny.us

Leave the "subject" line blank, and in the main body of the message write :

SUBSCRIBE GLBL-HS yourfirstname yourlastname

Listowners: Jason Slack,
jslack2@ocmvm.onondaga.boces.k12.ny.us

and Cathy Spallone
cspallon@ocmvm.onondaga.boces.k12.ny.us

GOPHERLAND

BLUE SKIES - Mac Gopher

InforMNs.k12.mn.us follow the path

About INFORMNS/INFORMNS Software Archive/Other interesting Software/Blue-Skies Mac Gopher

This Gopher Server is set up for K-12 users in the state of Minnesota and is a joint project between the State of Minnesota and Ties (a school district computer services district). It has many resources for k-12 educators and points to many more. The administrator of inforMNs is Steve Jensen and if you are having trouble you might ask him at:

jensen@InforMNs.k12.mn.us

OSS Net — The Intelligence Gopher

The OSS NET server houses two public collections of files: one from OPEN SOURCE SOLUTIONS Inc. (OSS Inc.), a non-profit organization leading the movement to establish a nationalinformation strategy which reinvents national (classified) and business intelligence; the other from the Information Professionals (InfoPro), a virtual community of information, investigative and intelligence professionals worldwide.

From your Internet access point, type <gopher gopher.oss.net> or <ftp ftp.oss.net>

INTERNET NON-PROFIT CENTER

The Internet NonProfit Center, which is now located at Envirolink, provides access to useful information regarding nonprofit organizations, The Center promotes the exchange of information among donors and helps nonprofit organizations communicate their message to a wider audience of potential friends and supporters.

Type=1 Name=Internet NonProfit Center
Path=1/.EnviroOrgs/.inc
Host=envirolink.org Port=70
URL: gopher://envirolink.org:70/11/.EnviroOrgs/.inc

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BEST COPY AVAILABLE

GOPHERLAND

Some Interesting Sites

Check Out These Sites:

U.N., FOOD AND AGRICULTURAL ORGANIZATION (FAO)

Type=1,Path=(blank),Host=gopher.fao.org
Port=2070
URL: gopher://gopher.fao.org:2070/1

THE UIUC EDUCATION GOPHER

Name=U. of Illinois-College of Education
Type=1+,Port=70,Path=(blank)
Host=gopher.ed.uiuc.edu

FISH INFORMATION SERVICE

Type=1+,Path=1/fish,Host=www.actwin.com
Port=70,Name=Fish Information Service (FINS)
- Aquarium info

POLAR INFORMATION SERVER

The University of Calgary Library has constructed a Polar Information Sources Gopher for information relating to the Arctic, Antarctic and other cold regions. To search the Polar Gopher

☞ point your gopher to gopher.ucalgary.ca
☞ select University Library
☞ select Polar Information Sources

The UNICEF Gopher

By telnet, log in to host name <hqfaus01.unicef.org> and typing user id <gopher>. No password is required.

Using gopher client, Type=1, Port=70, Path=(blank) ,Host=hqfaus01.unicef.org.

A Citizen's Guide to Internet Resources on the Rights of Americans.

Host: una.hh.lib.umich.edu
Path= inetdirsstacks/Citizens' Rights

Follow Other Gophers/ International Organizations to:

EnviroGopher, The EnviroLink Network

--> 1. About the EnviroLink Network/
2. EnviroAction -- Environmental Actions You Can Take/
3. EnviroInformation-- A Library of Environmental Information/
4. EnviroIssues-- Environmental Issues from Around the World/
5. EnviroPublications- Journals, Newsletters, Pubs, Etc.
6. EnviroNetworks-- Other Environmental Computer Networks/
7. EnviroOrgs-- Environmental Organizations On-Line/
8. EnviroGemment-- How You Can Influence the Governmental Process/
9. EnviroProducts-- Environmentally-Friendly Products and Services/
10. The EnviroWeb
11. The EnviroFreenet -- Log in! -- <TEL>
12. The Internet and It's Services/
13. The EnviroChat ** NEW ** <TEL>
14. Works In Progress/

Global Democracy Network

1. Search All Libraries <?>
2. Search CSCE <?>
3. Search Fourth World <?>
4. Search Human Rights Reports <?>
5. Search Laws and Conventions <?>
--> 6. Search U.S. State Department <?>
7. Search Country Reports on Human Rights <?>
8. Search CHRF Documents <?>
9. Search Multilaterals Project <?>
10. About GDN.
11. CHRF Documents/
12. Commission on Security and Cooperation in Europe/
13. Fourth World Documentation Project/
14. Global Democracy Network (GDN) <TEL>
15. Human Rights Reports/
16. Laws and Conventions/
17. Misc/
18. Related Gopher Servers/

Global NetProjects

CYBERSTARS – AN INTERNET SINGING TALENT CONTEST

CYBERSTARS is an Internet Singing Talent Contest sponsored by the University of Song, OnRamp/Media America, and the Global Schoolnet Foundation. Six winners will be chosen, and will be flown to New York City (with a parent or adult chaperone) to perform live at the United Nation's, "Children's Universal Summit" from June 23-29, 1995. Some 800 children representing 187 countries, will be participating simultaneously in Geneva and New York for this United Nation's World Summit, "Children Speak to the World."

The six winners will also be presented with awards, prizes, scholarship opportunities and worldwide television and press coverage. They will also have the opportunity to exhibit their talents before an audience of the music industry's finest artists, designers, and recording company representatives.

International singing start and President/ Founder of the University of Song, Jocelyne Jocya, former MTV celebrity and President of OnRamp, Adam Curry, and Global School-Net President, Yvonne Marie Andres, will be coordinating this event.

For more information about this project, subscribe to the listserv <cyberstars.interest> . To do so, send e-mail to:

majordomo@lists.cerf.net

and in the main body of the message type:

subscribe cyberstars.interest <your email address>

You will then receive a wlecome message.

MATH PENPALS: COMMUNICATION THROUGH NUMBERS

Math PenPals: Communication Through Numbers is an on-going project designed to encourage students to contrast and compare numbers, while learning more about electronic community. Learning disabled students from the North Middle School located in Menomonee Falls, WI, USA are coordinating this project with their teacher.

Major Objectives and Goals

- Students will improve telecommunication skills by reading and sending e-mail messages.
- Students will establish e-mail exchanges with students in a global setting.
- Students will become familiar with measurements in both metric and US equivalents.
- Students will participate and suggest monthly surveys and activities.
- Students will compare/contrast/discuss pricing information.
- Students will 'talk' via KIDLINK IRC and exchange examples of math activities and utilization of math in their environment.

MATH PENPALS is a KIDLINK project and therefore all participating youngsters must be between the ages of 10 and 15. Students must first register with KIDLINK, if they have not previously done so, and will need to answer the FOUR QUESTIONS. Students and classroom teachers will need to subscribe to the KIDPROJ list, and if possible, register as users of KIDLINK IRC. To get more information about KIDLINK, send an e-mail message to

LISTSERV@VM1.NODAK.EDU

and in the main body of the message write:**GET KIDLINK GENERAL.**

For further information about MathPals contact: Lisa Winrich at <lwinrich@quest.arc.nasa.gov>

A JANICE AND JOHN NETFACT (SEE PAGE 26)

The estimated number of individual accounts with access to lynx through state or regional networks: 71,000 in six states (California, Minnesota, North Dakota, Oregon, Texas, Virginia.

Global NetProjects

Fifty Nifty States Project

The Fifty Nifty States Project integrates communicative arts, mathematics, and social studies and is intended for upper elementary and middle school students who are learning about the United States. The pilot project was conducted during the Spring of 1994 and provided an exciting learning opportunity as well as introduction to the internet for children. The goal of the project is for children to use computer technology to construct as well as demonstrate their developing knowledge of the geography of a state, a region, and the entire United States. Through collaboration with fifth grade peers and email pals/state "experts", students will develop a meaningful framework for understanding the geography and culture of the United States. Email pals will share information about state and local information that is not only unique to their city or state, but also unavailable in "traditional" resources. The project will culminate in a United States Convention at which time state representatives (students) will gather together to share written and visual projects that seek to inform and interest conventioneers (other students, parents and community members).

We are seeking email pals from all fifty states to participate in this project. Whole classes, small groups and/or individuals may serve as email pals/state "experts". Email pals from the 1994 pilot project included law school students, librarians, high school teachers & students, grade school students, a 6 year old child(and mom as an assistant),a graduate student in entomology, and college students.

Participating email pals will be responsible for:

- regular communication with email pal from 3/95 - 6/95
- completion of 2-3 surveys (survey information will include, but is not limited to, cost comparisons, living conditions, weather, local attractions & trivia, etc.)

Participating email pals will receive:

- regular communication with their email pal from 3/95 - 6/95
- fascinating facts about Wisconsin
- survey results
- opportunity to connect with other participants in this project

If you are interested in participating in the 1995 Fifty Nifty States Project, please contact

Debby Schneider
Wauwatosa, WI
debbys@omnifest.uwm.edu

Sheryl Orman
St. Paul, MN
bunjy@aol.com

by January 15, 1995.

A JANICE AND JOHN NETFACT (SEE PAGE 26)

The TOTAL number of user accounts as of now (November 1994), 18 states partially reporting: 105,960. (NOTE User account defined as a teacher, student, or classroom account)**

Creating Connections and SAMI — Science and Math Initiatives Database

Creating Connections is a project of the Boulder Valley School District, funded by the Annenberg/CPB Math and Science Project and by the US West Foundation, and supported by the Los Alamos national Lab. The main objective of the project is to provide rural areas with the training and resources necessary to develop outstanding math and science education programs using the Internet.

To accomplish this objective, three main goals were established:

- The first goal was to provide Internet training to approximately 520 rural mathematics and sciencce educators at 20 regional sites in the United States.
- The second goal was to provide two years of technical and curriculum support for the 520 participants.
- The third goal was to build a database of resources for all participants.

The Internet training workshops took place in the summer of 1994, and the other two goals are ongoing.

SAMI is the information page about the Creating Connections project, It is available through both lynx and mosaic and can be found at URL:

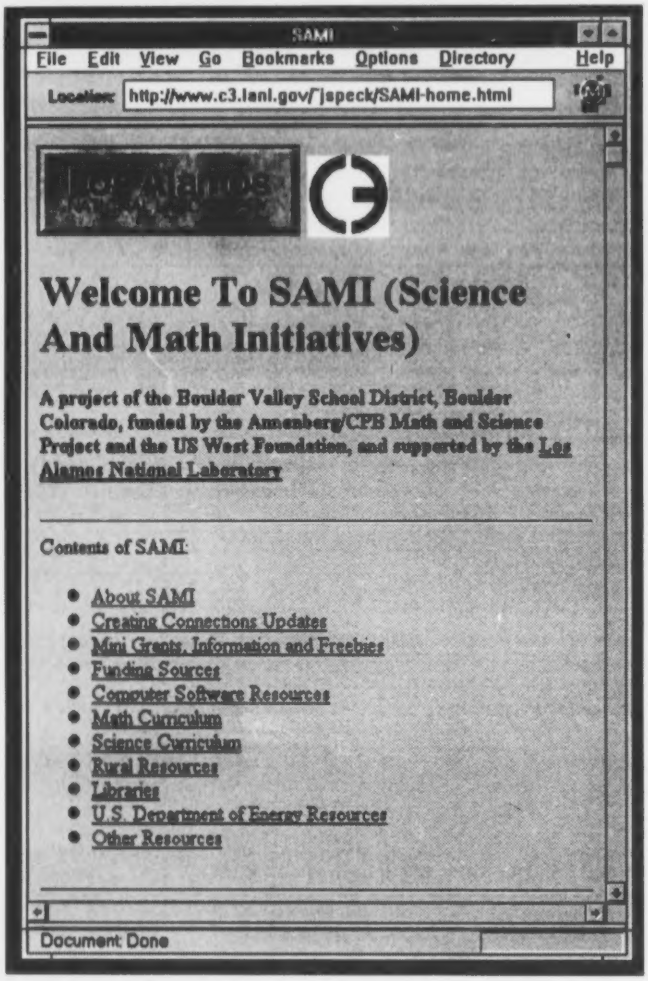
http://www.c3.lanl.gov:6060/SAMI-home

The contents of SAMI consist of:

About SAMI

Creating Connections Update

Mini Grants, Information and Freebies —I


SAMI
File Edit View Go Bookmarks Options Directory Help
Location: http://www.c3.lanl.gov/˜jspeck/SAMI-home.html
Document: Done

Welcome To SAMI (Science And Math Initiatives)

A project of the Boulder Valley School District, Boulder Colorado, funded by the Annenberg/CPB Math and Science Project and the US West Foundation, and supported by the Los Alamos National Laboratory

Contents of SAMI:

- About SAMI
- Creating Connections Updates
- Mini Grants, Information and Freebies
- Funding Sources
- Computer Software Resources
- Math Curriculum
- Science Curriculum
- Rural Resources
- Libraries
- U.S. Department of Energy Resources
- Other Resources

Funding Sources — Information about rural and general funding sources.

Computer Software Reviews — Contains some information on freeware or shareware utility programs.

Math Curriculum — You can link to Mega Math, Internet Lesson Plans, Interactive Math Books, Project Muse at John Hopkins, and much more.

Science Curriculum — There are links here to The Exploratorium, TERC Curriculum, Physics News, U.C. Berkeley Museum of Paleontology, Oceanic, CIESIN, and many more hot sites.

Rural Resources — Links to Eisenhower National Clearinghouse, The Northwest Regional Educational Laboratory, NASA Internet Resources, Rural Journals, and regional agencies.

Libraries— Pointers to CARL, Library of Congress, CIA Fact Book, SUNY, Ask ERIC, HK University Science and Technology, McGill University, Boston Public Library, and other sites.

U.S. Department of Energy Resources

Other Resources — educational resources that are not math or science oriented

For information about SAMI or Creating Connections contact: Creating Connections +1 303-447-5092

John R, Speckien <speckien@bvsd.k12.co.us>
Randy Sachter <rsachter@bvsd.k12.co.us>
Kelly Valdez <connect@bvsd.k12.co.us>
Libby Black <black@bvsd.k12.co.us>

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This is MEGA Mathematics!

THE MEGAMATH PROJECT: CYBERNETIC PROOF THAT MATH CAN BE FUN

Mike Hawrylycz and Nancy Casey, a mathematician and an educator, teamed up together to create Mega-Math. They have cleverly crafted exciting digital worlds to convey significant mathematical concepts to elementary age students.

The Mega-Math Project of Los Alamos National Laboratories is developing and piloting innovative approaches to the teaching and learning of mathematics and computer science for elementary school classrooms and for alternative educational venues such as childrens' science museums, virtual science museums on the Internet, childrens' radio and television programs, and family-based education and in-service teacher training institutes.

The interactive, online version of MegaMath is available on the Internet and can be found by pointing to URL:

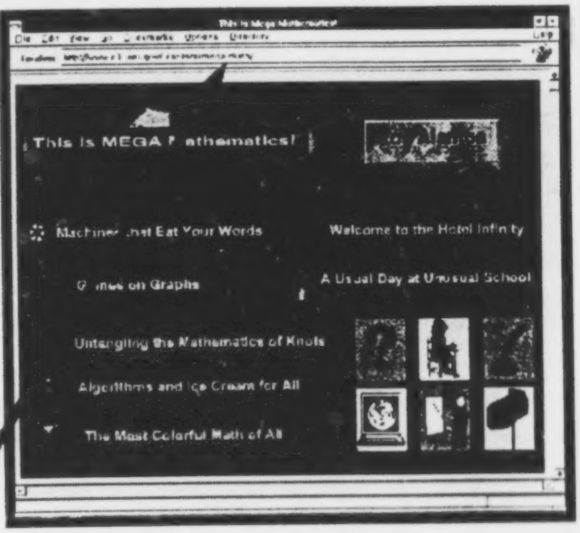
http:///www.c3.lanl.gov/~captors/mega-math/

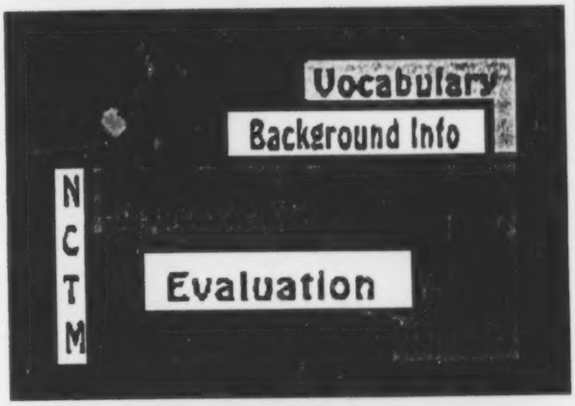
My favorite stops are the Hotel Infinity, Algorithms and Ice Cream for All, and Machines that Eat Your Words.

Some of the basic MegaMath paradigms and models appear in the Los Alamos MegaMath Workbook written by Nancy Casey and Mike Fellows. The workbook is available by contacting Mike Hawrylycz, MS M986, LANL, Los Alamos, NM 87545; e-mail <captors@c3.lanl.gov>

Great stuff by a brilliant young team of education and networking innovators.

For more information, contact Mike Hawrylycz <captors@c3.lanl.gov>


This is Mega Mathematics!
This is MEGA Mathematics!
Machines that Eat Your Words
Welcome to the Hotel Infinity
Games on Graphs
A Usual Day at Unusual School
Untangling the Mathematics of Knots
Algorithms and Ice Cream for All
The Most Colorful Math of All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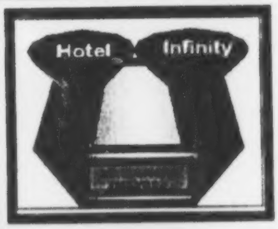
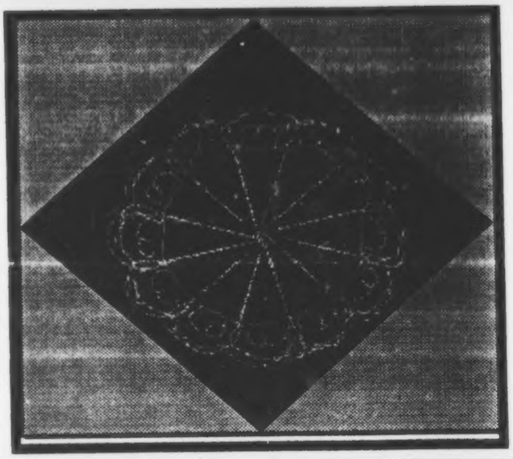
NCTM
Evaluation

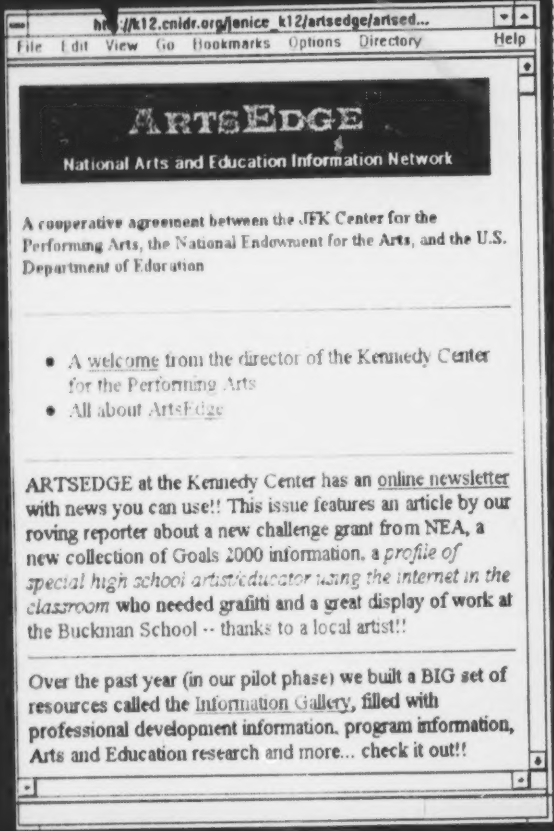
Machines that Eat Your Words


Hotel
Infinity



ArtsEdge
URL: http://k12.cnidr.org/janice_k12/artsedge/html

✓ HOT URL

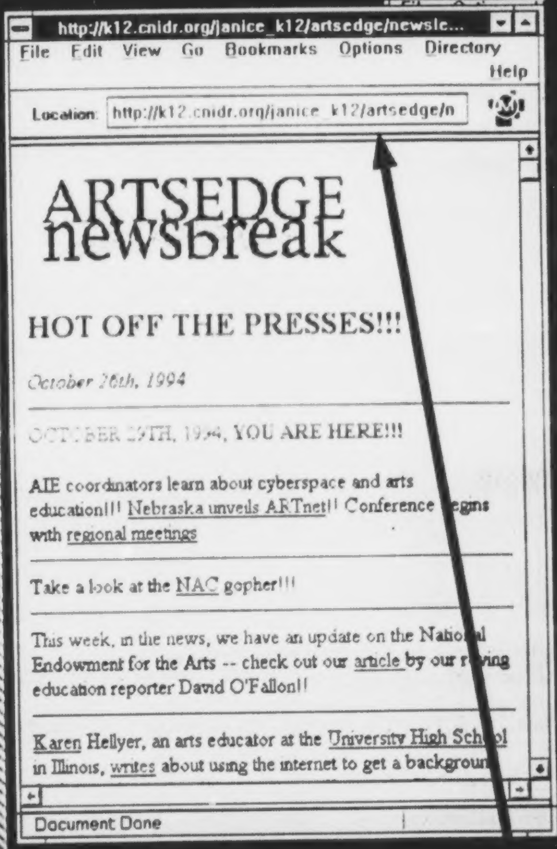

http://k12.cnidr.org/janice_k12/artsedge/artsed...
File Edit View Go Bookmarks Options Directory Help
ARTSEDGE
National Arts and Education Information Network

A cooperative agreement between the JFK Center for the Performing Arts, the National Endowment for the Arts, and the U.S. Department of Education

- A welcome from the director of the Kennedy Center for the Performing Arts
- All about ArtsEdge

ARTSEDGE at the Kennedy Center has an online newsletter with news you can use!! This issue features an article by our roving reporter about a new challenge grant from NEA, a new collection of Goals 2000 information, a *profile of special high school artist/educator using the internet in the classroom* who needed grafitti and a great display of work at the Buckman School -- thanks to a local artist!!

Over the past year (in our pilot phase) we built a BIG set of resources called the Information Gallery, filled with professional development information, program information, Arts and Education research and more... check it out!!


http://k12.cnidr.org/janice_k12/artsedge/newslc...
File Edit View Go Bookmarks Options Directory Help
Location: http://k12.cnidr.org/janice_k12/artsedge/n
ARTSEDGE newsbreak
Document Done

HOT OFF THE PRESSES!!!

October 26th, 1994

OCTOBER 29TH, 1994, YOU ARE HERE!!!

AIE coordinators learn about cyberspace and arts education!!! Nebraska unveils ARTnet!! Conference begins with regional meetings

Take a look at the NAC gopher!!!

This week, in the news, we have an update on the National Endowment for the Arts -- check out our article by our roving education reporter David O'Fallon!!

Karen Hellyer, an arts educator at the University High School in Illinois, writes about using the internet to get a backgroun

ArtsEdge is the result of a cooperative agreement between The John F. Kennedy Center, the National Endowment for the Arts and the U.S. Department of Education.

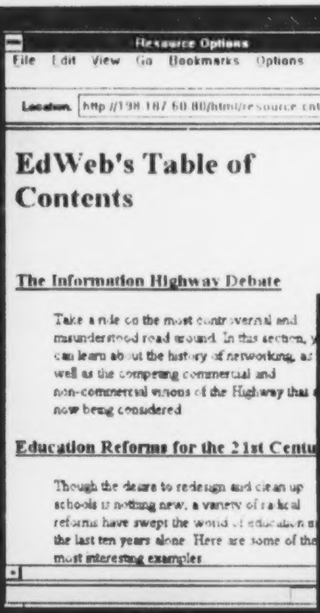
The ArtsEdge web pages are filled with information, including a newsletter about the Arts in K-12 education, Goals 2000 information, links to art and education related resources, stories about teachers who are using the web in the classroom -- and a link to the Information Gallery. The Information Gallery is a collection of information resources about Goals 2000, meetings and conferences, professional development opportunities, media resources, research and more!!

To check out ArtsEdge Newsbreak point to URL :

http://k12.cnidr.org/ janice_k12/artsedge/newsletter/html

EdWeb:
http://198.187.60.80/html/resource.cntnts.html

✓ HOT URL!



Location: http //198 187 60 80/html/resource cntnts

EdWeb's Table of Contents

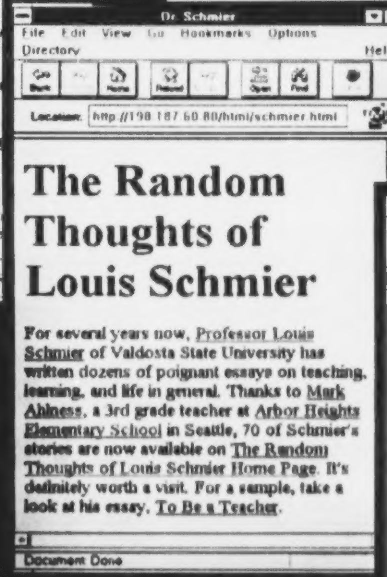
The Information Highway Debate

Take a ride on the most controversial and misunderstood road around. In this section, y can learn about the history of networking, as well as the competing commercial and non-commercial visions of the Highway that now being considered

Education Reforms for the 21st Centu

Though the desire to redesign and clean up schools is nothing new, a variety of radical reforms have swept the world of education in the last ten years alone. Here are some of the most interesting examples

http://198.187.60.80/html/schmier.html



Location: http //198 187 60 80/html/schmier html

The Random Thoughts of Louis Schmier

For several years now, Professor Louis Schmier of Valdosta State University has written dozens of poignant essays on teaching, learning, and life in general. Thanks to Mark Ahlness, a 3rd grade teacher at Arbor Heights Elementary School in Seattle, 70 of Schmier's stories are now available on The Random Thoughts of Louis Schmier Home Page. It's definitely worth a visit. For a sample, take a look at his essay, To Be a Teacher.

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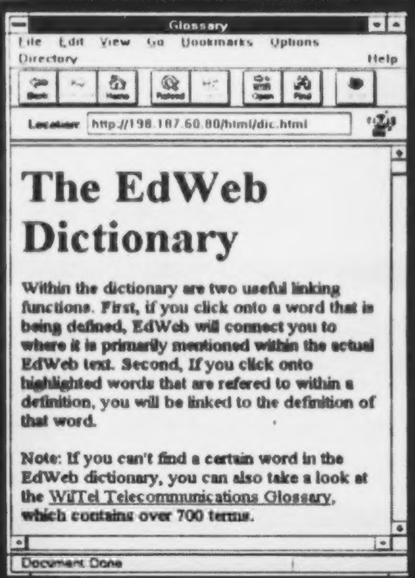
http://198.187.60.80/html/dic.html



Location: http://198.187.60.80/html/dic.html

The EdWeb Dictionary

Within the dictionary are two useful linking functions. First, if you click onto a word that is being defined, EdWeb will connect you to where it is primarily mentioned within the actual EdWeb text. Second, If you click onto highlighted words that are refered to within a definition, you will be linked to the definition of that word.

Note: If you can't find a certain word in the EdWeb dictionary, you can also take a look at the WilTel Telecommunications Glossary, which contains over 700 terms.

Document Done

The Corporation for Public Broadcasting's EdWeb is an experimental on-line information and learning tool. EdWeb allows users to move from one subject to another via the World Wide Web.

EdWeb was created by Andy Carvin who is an education and information technology specialist and former Annenberg/Washington Fellow of Telecommunications at the Corporation for Public Broadcasting in Washington, D.C.

Comments, criticisms, and suggestions are welcomed and should be sent to Andy via email at: <acarvin@aol.com> or by telephone at +1 202 879-9824.

AskERIC Virtual Library
URL:http://eryx.syr.edu/Main.html

HOT URL

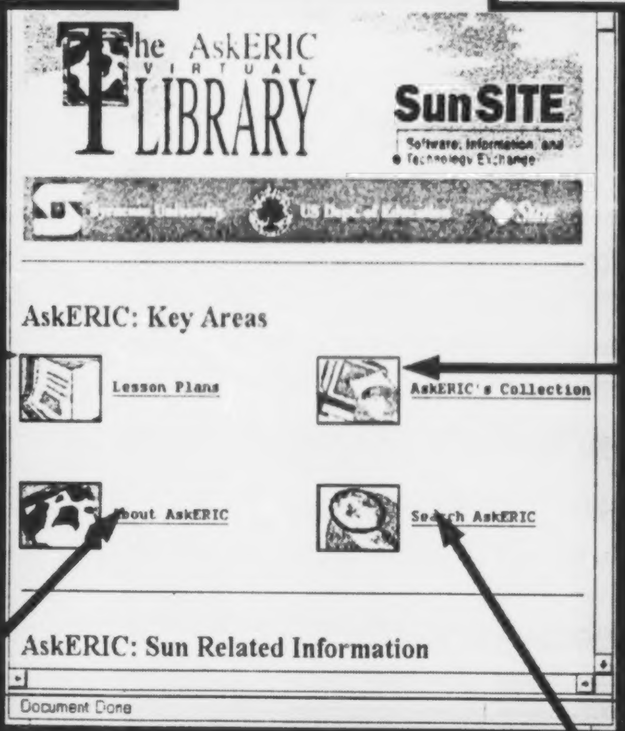
Lesson Plans

gopher://ericir,syr.edu/11/Lesson

Links to Newton's Apple, CNN Newsroom, The Discovery Channel, Linquid Crystal, and many other sources of lesson plans.

AsKERIC Collection

Lesson plans, educationallist-servs archives, bibliographic database, news and announcements, educational conferences, Internet guides and directories, Eric Digest File, Other Education Resources


AskERIC Home Page
Bookmarks Options Directory
The AskERIC Virtual Library
SunSITE
Software, Information, and Technology Exchange
Syracuse University
US Dept of Education
Sun

AskERIC: Key Areas

Lesson Plans

AskERIC's Collection

About AskERIC

Search AskERIC

AskERIC: Sun Related Information

Document Done

About AskEric

AskERIC is an Internet-based question-answering service for teachers, library media specialists, and administrators. Anyone involved with K12 education can send an e-mail query to ASkERIC's staff at: askeric@ericir.syr.edu

Searh AskERIC

Search the AskERIC gopher at : <gopher://ericir.syr.edu:3000/7

Use the search function of your browser to search terms.

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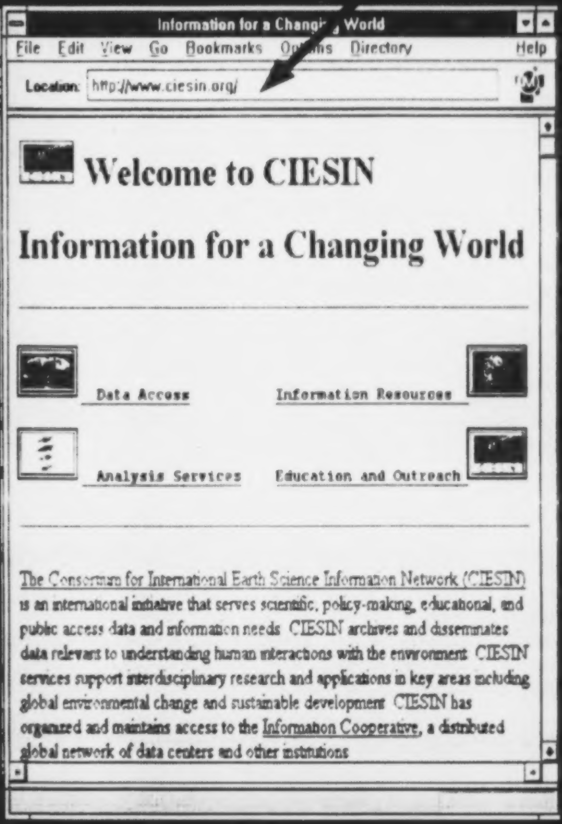
CIESIN — Information for a Changing World
URL: http://www.ciesin.org/

✓ HOT URL

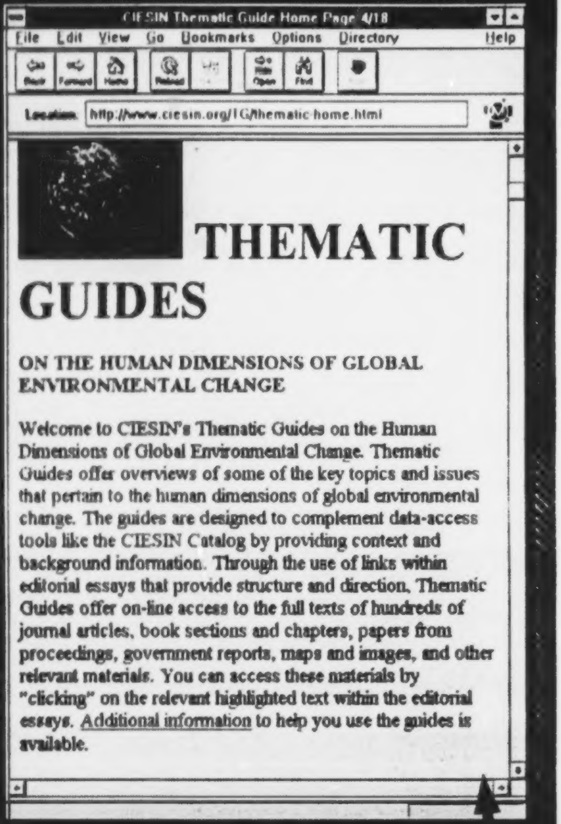

Information for a Changing World
File Edit View Go Bookmarks Options Directory Help
Location: http://www.ciesin.org/

Welcome to CIESIN

Information for a Changing World

Data Access
Information Resources
Analysis Services
Education and Outreach

The Consortium for International Earth Science Information Network (CIESIN) is an international initiative that serves scientific, policy-making, educational, and public access data and information needs. CIESIN archives and disseminates data relevant to understanding human interactions with the environment. CIESIN services support interdisciplinary research and applications in key areas including global environmental change and sustainable development. CIESIN has organized and maintains access to the Information Cooperative, a distributed global network of data centers and other institutions


CIESIN Thematic Guide Home Page 4/18
File Edit View Go Bookmarks Options Directory Help
Back Forward Home Reload Open Find
Location: http://www.ciesin.org/TG/thematic-home.html

THEMATIC GUIDES

ON THE HUMAN DIMENSIONS OF GLOBAL ENVIRONMENTAL CHANGE

Welcome to CIESIN's Thematic Guides on the Human Dimensions of Global Environmental Change. Thematic Guides offer overviews of some of the key topics and issues that pertain to the human dimensions of global environmental change. The guides are designed to complement data-access tools like the CIESIN Catalog by providing context and background information. Through the use of links within editorial essays that provide structure and direction, Thematic Guides offer on-line access to the full texts of hundreds of journal articles, book sections and chapters, papers from proceedings, government reports, maps and images, and other relevant materials. You can access these materials by "clicking" on the relevant highlighted text within the editorial essays. Additional information to help you use the guides is available.

The Consortium for Interernational Earth Science Information Net (CIESIN) is an international initiative that seeks to disseminate information relevant to understanding human interactions with the environment to the scientific, policy-making, and educational communities.

The CIESIN page provides DATA ACCESS to Catalog Services, the Information Cooperative, and Dataset Guides, and offers access to Information Resources including THEMATIC GUIDES, the CIESIN KIOSK, and OTHER Internet Resources available through ther Environmental Internet Catalog.

CHECK OUT THE THEMATIC GUIDES at URL: http://www.ciesin.org/TG/thematic-home.html

<info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

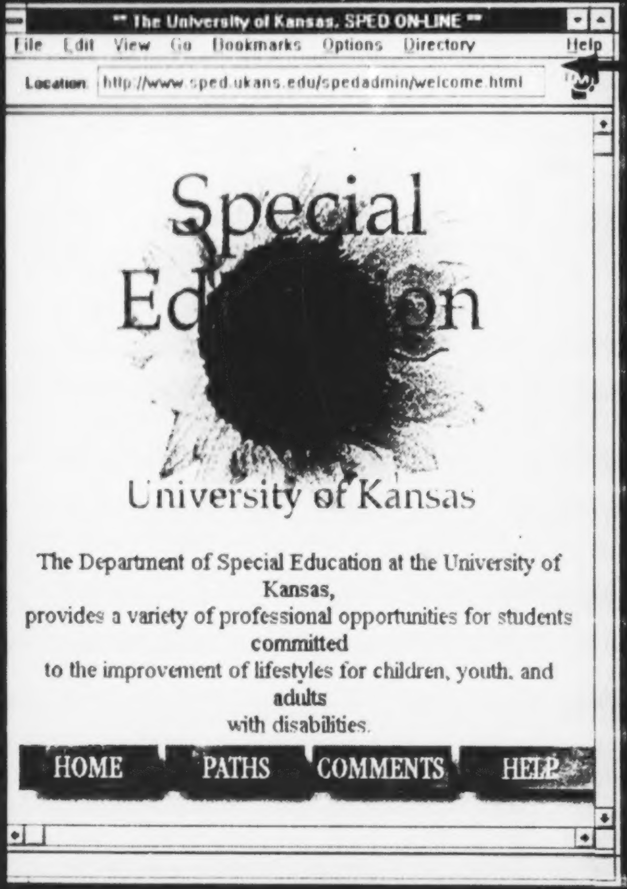
BEST COPY AVAILABLE

✓ HOT URLS

Find out more about the **Dole Human Development Center** at URL:http://kuhttp.cc.ukans.edu/cwis/units/lsi/dolehp.html

SPED ON-LINE

The **University of Kansas, Department of Special Education** and the **Dole Human Development Center** Announce SPED ON-LINE, a special education resource on the Internet. Point to URL:
http://www.sped.ukans.edu/spedadmin/



** The University of Kansas, SPED ON-LINE **
File
Edit
View
Go
Bookmarks
Options
Directory
Help
Location:
http://www.sped.ukans.edu/spedadmin/welcome.html
Special Education
University of Kansas
HOME
PATHS
COMMENTS
HELP

The Department of Special Education at the University of Kansas,
provides a variety of professional opportunities for students committed
to the improvement of lifestyles for children, youth, and adults
with disabilities.

Check out **Research on Disabilities** at URL: http://www.sped.ukans.edu/speddisabilitiesstuff/speddisabilities-welcome.html

Check out **Research Projects on Disabilities** at URL: http://www.sped.ukans.edu/spedadmin/projectlist.html

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WHAT ELSE IS NEW ON THE WEB?

The **CIA Web Server** at: http://www.ic.gov

MidLink Magazine's **Holiday Festival** WWW at: http//longwood.ca.usf.edu/~MidLink

Dialog Information Services, Inc. WWW server at: http://www.dialog.com

The home page of **The Shaw Festival**–the second largest theatre Company in North America. Point to: http://www.cyberplex.cp,/CyberPlex/Arts/Shaw.html

The Magellan Mission to Venus Home Page is now available at NASA's Jet Propulsion Lab in Pasadena, California, USA. Point to: http://newproducts.jpl.nasa.gov/magellan/

Brian Kelly's **Tutorial workbook for Mosaic for Windows** is intended for new users. Point to: http://www.leeds.ac.uk/ucs/docs/tut50/tut50.html

The Space Calendar is now available. In it you can find space-related events and anniversaries that are coming up within the next 12 months. Point to URL: http://newproducts.jpl.nasa.gov/calendar

Apple Computer's Customer Service Division is pleased to announce **The Apple Support and Information Web** . Point to Url: http://www.info.apple.com/

The Department of Premier and Cabinet Web Seervice in **Tasmania,** Australia. Point to URL: http://info.dpac.tas.gov.au/

The Center for the Neural Basis of Cognition (CNBC) announces its web server. Created in 1994, CNBC is dedicated to the study of the neural basis of cognitive processes, including learning and memory, language and thought, perception, attention, and planning. Point to URL: http://www.cs.cmu.edu:8001/afs/cs/project/cnbc/CNBC.html

The Chicago Academy of Sciences reveals its new Web server. Point to URL: http://www.mcs.com/~cas/home.html and find out about all the various educational activities sponsored by CAS.

The United Kingdom government now has a web site. Point to URL: http://www.open.gov.uk/

The US Department of Education's Satellite Town Meeting on Technology can be found at URL: http://www.ed.gov

Time, Inc. has put up an experimental Web server at URL: http://www.timeinc.com

The **MathMagic** Foundation has a new http address, URL: http://forum.swarthmore.edu/mathmagic/

GLOCOM's experimental WWW server can be found at URL: http://www.glocom.ac.jp/index.html

The **MIT Document Services** announces its WebPage. Point to URL: http://web.mit.edu/afs/athena.mit.edu/dept/libdata/applications/www/depts/document_services/docs.html

The Digital Calendar

December 1994

5-6 December **Libraries and the National Information Infrastructure**; Quality Hotel, Silver Spring, Maryland . Sponsored by CAPCON Library Network. A brochure with the program and registration information may be obtained by calling CAPCON at +1 202 331-5771 or by sending an e-mail message to: <niiconf@capcon.net>

February

7-11 February **Texas Computer Education Association (TCEA) 15th Annual State Conference,** Austin Convention Center, Austin, TX; Contact: Robert Knight, Executive Secretary, TCEA;tel: +1 800 282-8232; fax +1 806 799-0906; e-mail: knight@tenet.edu.

28-3/3 February ICTE Orlando '95, **"Leadership for Creating Educational Change: Integrating the Power of Technology";** Orlando, FL; Tom Sechrest, 12th International Conference on Technology and Education, The University of Texas at Austin, College of Education, EDB 518, Austin, TX 78712 USA; tel: + 1 512/471-4080; fax +1 512/471-8786; E-mail:sechrest@mail.utexas.edu.

March 1995

22-25 March **SITE'95 6th International Conferene** in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: <AACE@virginia.edu>

June 1995

17-19 June **Emerging Technologies—Lifelong Learning, NECC'95.** Baltimore, Maryland. For information contact: NECC'95 , ISTE, 1787 Agate Street, Eugene, OR 97403-1923. Tel: +1 503-346-3537, fax +1 503-346-3509e-mail : PDKATZ@oregon.uoregon.edu

28-30 June. **INET'95 - Internet Society's 1995 International Networking Conference** in Honolulu, Hawaii. INET'95, the 5th Annual Conference of the Internet Society focusing on worldwide issues of Internet networking will be held 28-30 June 1995 in Honolulu, Hawaii. The goal of this conference is to provide a platform that will bring together those developing and implementing Internet networks, technologies, applications, and policies worldwide for infrastructure development.

Conference Topics. Possible topics for paper submissions include but are not limited to the following:

- o Network Technology
- o Network Engineering and Operation
- o Application Technology
- o Users
- o Regional Issues
- o Policy Issues
- o Commercial and Business Aspects
- o Education

Developing Country Workshop. The INET'95 Conference will be preceded by a seven day program of intensive instruction with a hands-on emphasis on Internet set-up, operations, maintenance and management. For information and general questions about the workshop, please send email to:

workshop-info@isoc.org

For applying to attend the workshop please send email to:

workshop-apply@isoc.org

Information concerning the conference is available from the Internet Society Secretariat:
URLs:http://www.isoc.org/inet95.html
gopher://gopher.isoc.org/11/isoc/inet95
ftp://ftp.isoc.org/isoc/inet95
Email: inet95@isoc.org
Tel: +1 703 648 9888

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THE DIGITAL BOOKSTORE

ERIC Publications Show How the Internet and New Information Technology are Affecting Education, the Economy, and Society

Two new monographs which highlight current communications technologies and how they are affecting curriculum, the economy, and society have been published by the ERIC Clearinghouse on Information & Technology, Syracuse University, Syracuse, New York.

An Educator's Guide to Electronic Networking: Creating Virtual Communities by Barbara Kurshan and Marcia Harrington, revised and updated by Peter Milbury, offers network novices an introduction to the Internet and the benefits of network resources, a comparison of 28 commercial and non-commercial service providers, and an extensive glossary of more than 200 common networking terms. This guide assists teachers and administrators in making informed decisions prior to implementing network technologies in their schools.

Christina Doyle's Information Literacy in an Information Society: A Concept for the Information Age, recognizes the change in American society from an industrial economy to an economy based in services and information. This monograph encourages educators to prepare students for success in the new working environment by teaching them to access, evaluate, and use information from a variety of sources.

Ordering Information:

To order the above publications,
call:
Janet LaFrance
Database Secretary
800-464-9107,
or write:
ERIC Clearinghouse on Information & Technology
4-194 Center for Science and Technology
Syracuse University,
Syracuse, New York 13244-4100.
Fax to:
315-443-5448
or Internet:
janet@ericir.syr.edu

An Educator's Guide to Electronic Networking: Creating Virtual Communities, (IR-96), 118 pp., 8.5" x 11", tables, glossary, $10. plus $2. shipping.(ISBN: 0-937597-37-6)

Information Literacy in an Information Society: A Concept for the Information Age, (IR-97), 84 pp., 5.5" x 8", $8. plus $2. shipping. (ISBN: 0-937597-38-4)

The Internet-Draft "Ways to Define User Expectations" is now available as an Informational RFC. This document is the product of the Internet School Networking Group. It is currently available as an Internet-Draft, and will shortly be published as an RFC by the IETF.

FTP Access

The IETF information described above is available by anonymous FTP from several sites.

- Africa ftp.is.co.za (196.4.160.2)The Internet-Drafts on this machine are stored in GNU compressed form (i.e., the .gz file extension).
- Europe nic.nordu.net (192.36.148.17)
- Pacific Rim munnari.oz.au (128.250.1.21) The Internet-Drafts on this machine are stored in UNIX compressed form (i.e., the .Z file extension).
- US East Coast ds.internic.net (198.49.45.10)
- US West Coast ftp.isi.edu (128.9.0.32)

To retrieve this information, FTP to one of the above sites, log in with username anonymous and your e-mail address as the password. When logged in, change to the desired directory (using the cd command), and retrieve the desired files (using the get command).

E-mail Access

Internet-Drafts, and other IETF material, are available by mail server from ds.internic.net. To retrieve a file, mail a request to mailserv@ds.internic.net with a subject of anything you want. In the body, put one or more commands of the form:

```
FILE /ietf/1wg-summary.txt
FILE /internet-drafts/1id-abstracts.txt
FILE /iesg/iesg.92-11-10
PATH jdoe@somedomain.edu
```

where PATH lists the e-mail address where the response should be sent.

Other Access Methods

IETF-related information is also available via the World-Wide Web and Gopher. Both of these services are constantly evolving over time, so a description of their contents will not be given.

- Gopher: gopher.ietf.cnri.reston.va.us
- WorldWide Web: http://www.ietf.cnri.reston.va.us/home.html>

The Internet Chameleon Revolution Continues

NetManage, the leader in TCP/IP for Windows applications, recently released the newest version of the company's award winning Internet access software package, **Internet Chameleon**. This release includes NetManage's new Instant InternetTM application which allows a user to sign-up for a new Internet account and automatically configure their PC in 5 minutes or less. Also prominent in this release is the addition of NetManage's WebSurferTM graphical browser for the World Wide Web. Other new features include an Archie Internet search and retrieval client, support for modem speeds up to 115.2 Kbps, and native high-speed ISDN support.

Using **Instant Internet,** beginning users can sign-up for a new account and configure their PC to connect to the Internet in 5 minutes or less. All of the guesswork and complication of choosing an Internet provider and setting up an account has been eliminated. Getting on the Internet with Instant Internet is so simple it makes the Internet accessible to everyone.

Instant Internet allows the user to select from one of five national Internet access providers including: Advantis (The IBM Internet Connection), AlterNet, CERFnet, Portal Communications and PSI's InterRamp service. Eachprovider is featured in a graphical tab folder that includes availability and pricing information for each provider, plus a sign-up form where the user can enter their name, address, and credit card information to request a new Internet account. After signing up for a new account, the user simply exits Instant Internet and then connects directly to their new Internet account. All configuration information, including passwords, phone numbers, and addresses for news, mail, web, and gopher servers are already entered.

NetManage's new **WebSurfer** is a World Wide Web navigation tool that allows users to browse multimedia hypertext documents on the Internet. Using hypertext commands the user can point-and-click on key text commands and access thousands of information files including sound, movies and interactive data. WebSurfer features beautiful 16 million full color graphics support, automatic optimization for dial-up line speeds, local file caching, and WYSIWYG (What You See Is What You Get) style schemes.

Other New Features

NetManage's Archie client is one of the first commercially available implementations of the popular search tool. The Archie application is a graphical search tool that allows users to search and retrieve files from publicly accessible Archie servers including documents, software, games and more. Support for Modem speeds up to 115.2 Kbps gives the power user all the speed they need for optimum on-line performance. Native ISDN support has also been added, supporting the new industry standard ISDN interface called WinISDN.

More Applications than Any Other Internet Access PackageInternet Chameleon features over a dozen Internet access tools including:

Electronic Mail: Featuring the capability to send mail messages with multi-media attachments anywhere in the world using the SMTP and MIME standards. Other unique features include user-defined folders, rules for filtering incoming mail, and an Off-line Outbox that allows users to prepare and send all their messages working off-line, and have them automatically sent next time the user connects to the Internet.

WebSurfer: Graphical interface tool that provides easy exploration on the World Wide Web.

Gopher Client: Gopher makes browsing the 3,600 public Gopher information servers as easy as navigating the Windows file manager.

NEWTNews Internet News Reader: Subscribe to any of the over 6,000 news groups available.

Archie: Archie is a menu-driven interface that allows users to search Internet Archie servers.

FTP File Transfer: Transfer files using FTP to and from other computers. Internet Chameleon's unique FTP Server, lets you set up your own PC as a file server, allowing colleagues on the Internet to transfer files to and from your machine with full password and read/write protection that you control.

Telnet: Login to remote computers on the Internet using Telnet. Browse and search sources such as the Library of Congress card catalog.

Network Utilities: The Ping, Finger, and WhoIs utilities allow you to find out who is who on the Internet and whether or not their system is available.

Industry Standard WinSock TCP/IP: Internet Chameleon comes with dial-up TCP/IP communications using SLIP, PPP and ISDN dial-up access. The NEWT (NetManage Enhanced Windows TCP/IP) communications stack has an Industry Standard Windows Sockets Interface WinSock, that is endorsed by Microsoft and every other major vendor.

Pricing and Availability

Internet Chameleon is priced at $199.00 and is shipping now. Prices are per copy domestic U.S. Current Internet Chameleon users can upgrade to version 4.1 for $15.00 per copy. Maintenance can be purchased for $60.00 per software package. Pricing does not include Internet service provider account fees.

More Information on Internet Chameleon can be found on the NetManage Gopher server at gopher.NetManage.com or the company's World Wide Web home page at www.netmanage.com.

NetManage is located at 10725 De Anza Blvd. Cupertino, CA 95014, U.S.A. tel: +1 408-973-7171; fax +1 408-257-6405.

BLUE SKIES — An Exciting New Product from The Weather Underground

Blue-Skies is a unique weather display system that was designed to provide a friendly interface for all levels of users. The program was written by Alan Steremberg, a University of Michigan student , under a National Science Foundation grant.

Blue-Skies offers users relatively fast access to literally hundreds of real-time weather and environmental images. Among its innovative features is the incorporation of a file transfer protocol based on the University of Minnesota's "gopher"service. Blue-Skies is a gopher client, with interactive graphics capabilities current Macintosh gopher clients do not support. The gopher protocol allows for easy control of the graphical user interface, the addition of special topics that can be dynamically updated without altering the client.

Blue-Skies runs only on color or gray-scale Macintosh computers. It will not run on the Mac+ or Apple II computers. Plans are underway to port Blue-Skies to IBM-PC machines running Microsoft Windows, but this software will likely be unavailable until 1995.

If you are not connected to the Internet, you will need a modem. A fast modem of at least 9600 bps is recommended because many of the images are large and take considerable time to transfer over slow phone lines.

NOTE — Blue-Skies is a TCP/IP application which requires a TCP/IP network to be properly functioning prior to Blue-Skies being launched. If you are connecting via a modem and phone line, you will need either a SLIP (Serial Line Internet Protocol) or PPP (Point-to-Point-Protocol) connection from desktop to service provider. You will need to contact your local network service provider to determine whether you access is supported by either SLIP or PPP.

Users should also have NCSA telnet, a free public-domain communications program that will allow one to access the normal text-based Weather Undergrounddata.

HOW TO GET THE SOFTWARE

Using Gopher

If you are using an old version of Blue-Skies or the freely availableTurbogopher program, connect to: groundhog.sprl.umich.edu (port 70), change ,directories to "Software", then double click on the "Blue-Skies_1.0.sea.hqx"file. It will then be transferred to your computer. The file is over 200K in size.

Using Fetch, Xferit, or NCSA Telnet

One can also get the software using one of the freely available Macintosh file transfer programs such as "Fetch", "Xferit", or "NCSA Telnet".

Connect to: madlab.sprl.umich.edu.

When it asks for your user name, type in "anonymous". When asked for your password, simply type your email address.

Now you are connected to the Blue-Skies ftp file server. Change directories to "pub/Blue-Skies".

Before transferring the file, be sure to set the transfer mode to binary. Finally, get the file "Blue-Skies_1.0.sea.hqx". You will need to run the freely available "BinHex 4.0" program to uncompress the file.

Currently Blue-Skies offers:

- Interactive Weather Maps
- International Weather Maps - Color maps of temperature and precipitation are generated every 6 hours for most of the world.
- Weather Animations - Quicktime movies of the latest several hours of satellite imagery, as well as precipitation and frontal movements, temperature changes, and wind field changes are offered.
- Ozone Hole - Recent images of the percent of normal ozone column, as reported by the TOMS satellite is made available as it is released by NASA.
- Air Pollution - All the daily Acid Rain precipitation chemistry data from the Utility Acid Precipitation Assessment Program will be made available.
- Famous Weather Events - A special folder containing archives of selected weather phenomena.
- Curriculum Materials - Ideas and information on how to use Blue-Skies for teaching in the K-12 classroom.
- Exploring the Internet - A gateway to the amazing diversity of the world-wide computer network called the Internet.

Questions can be sent to:

blueskies@umich.edu

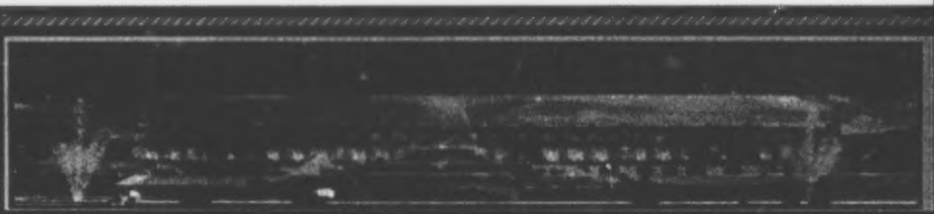
or

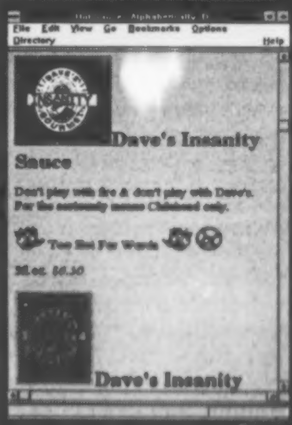
The Weather Underground
University of Michigan
Ann Arbor, Michigan 48109-2143

or (last resort) call +1 313-936-0491 or +1 313-764-4584

HOLIDAY NETZAAR

AVOID THE CROWDS VISIT THE INTERNET PLAZA at URL: http://plaza.xor.com/



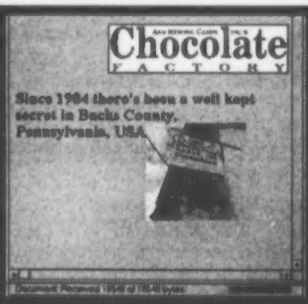

File Edit View Go Bookmarks Options Directory Help

Dave's Insanity Sauce

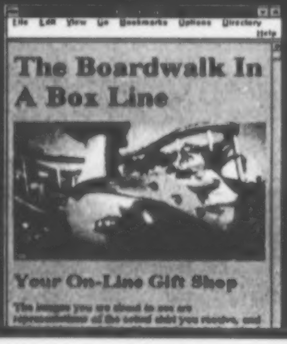
Dave's Insanity

Check out the HOT,HOT,HOT DAVE's Line of Sauces brought to you by Presence and Lobo Enterprises. Point to URL: http://www.presence.com/hot/

Order Chocalates from Ann Hemyng Candy Inc. Point to The Candy Chocolate Factory at URL: http://mmink.cts.com/


Chocolate
FACTORY

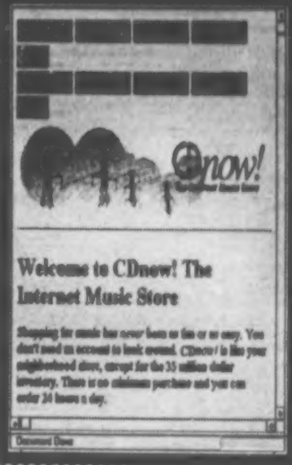
Since 1984 there's been a well kept secret in Bucks County, Pennsylvania, USA.


File Edit View Go Bookmarks Options Directory Help

The Boardwalk In A Box Line

Your On-Line Gift Shop

How about a CyberTees Custom T-Shirt for the NetAddicted Grandpa. Point to URL: http://www.cybertees.com

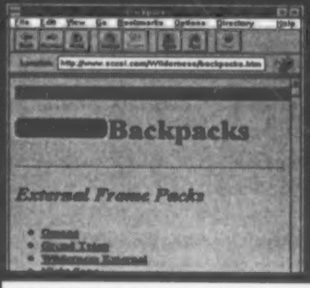


Welcome to CDnow! The Internet Music Store

Shopping for music has never been so fun or so easy. You don't need an account to look around. CDnow! is like your neighborhood store, except for the 35 million dollar inventory. There is no minimum purchase and you can order 24 hours a day.

Document: Done

How About A CD from CDnow! Point to URL: http://cdnow.com/


File Edit View Go Bookmarks Options Directory Help
Location:

Backpacks

External Frame Packs

How About Outfitting Your Wilderness-Loving Partner with gear from WILDERNESS FURNISHINGS. Point to URL: http://www.sccsi.com/Wilderness/wilderness.html

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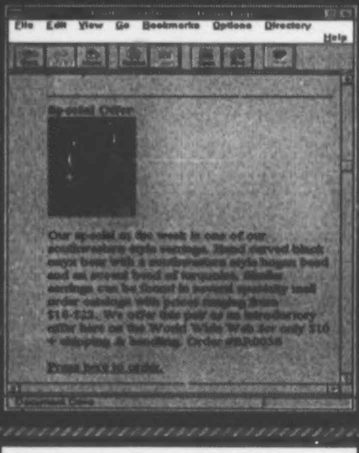
HOLIDAY NETZAAR

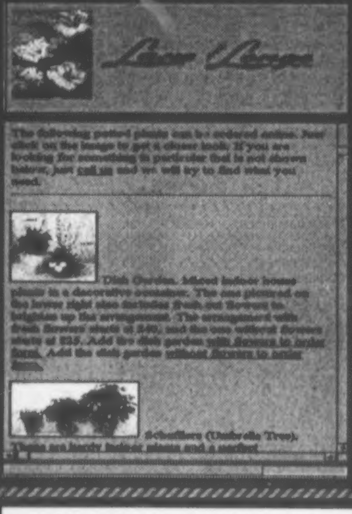

File Edit View Go Bookmarks Options Directory Help
Special Offer

Check out Earth Spirit Designs for some wonderful gifts such as these Earrings. Point to URL: http://www.seanet.com/tomh/

TWO CAPTAINS
ONE DESTINY
GENERATIONS

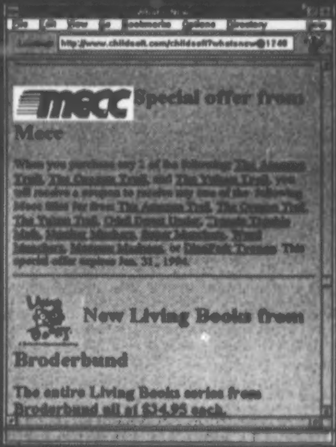
You can order the Generations Poster by pointing to URL: http://generations.viacom.com/

Spencer Gifts Catalog has the Limited Edition Star Trek Phone. Point to URL: http://www.btg.com/spencer/



A Potted Plant for Aunt Mabel? Visit Lane and Lenge. Point to URL: http://plaza.xor.com/lane/

The Children's Software Company http://www.childsoft.com/childsoft


File Edit View Go Bookmarks Options Directory Help

http://www.childsoft.com/childsoft?whatsnew@1740

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The entire Living Books series from Broderbund all at $34.95 each.

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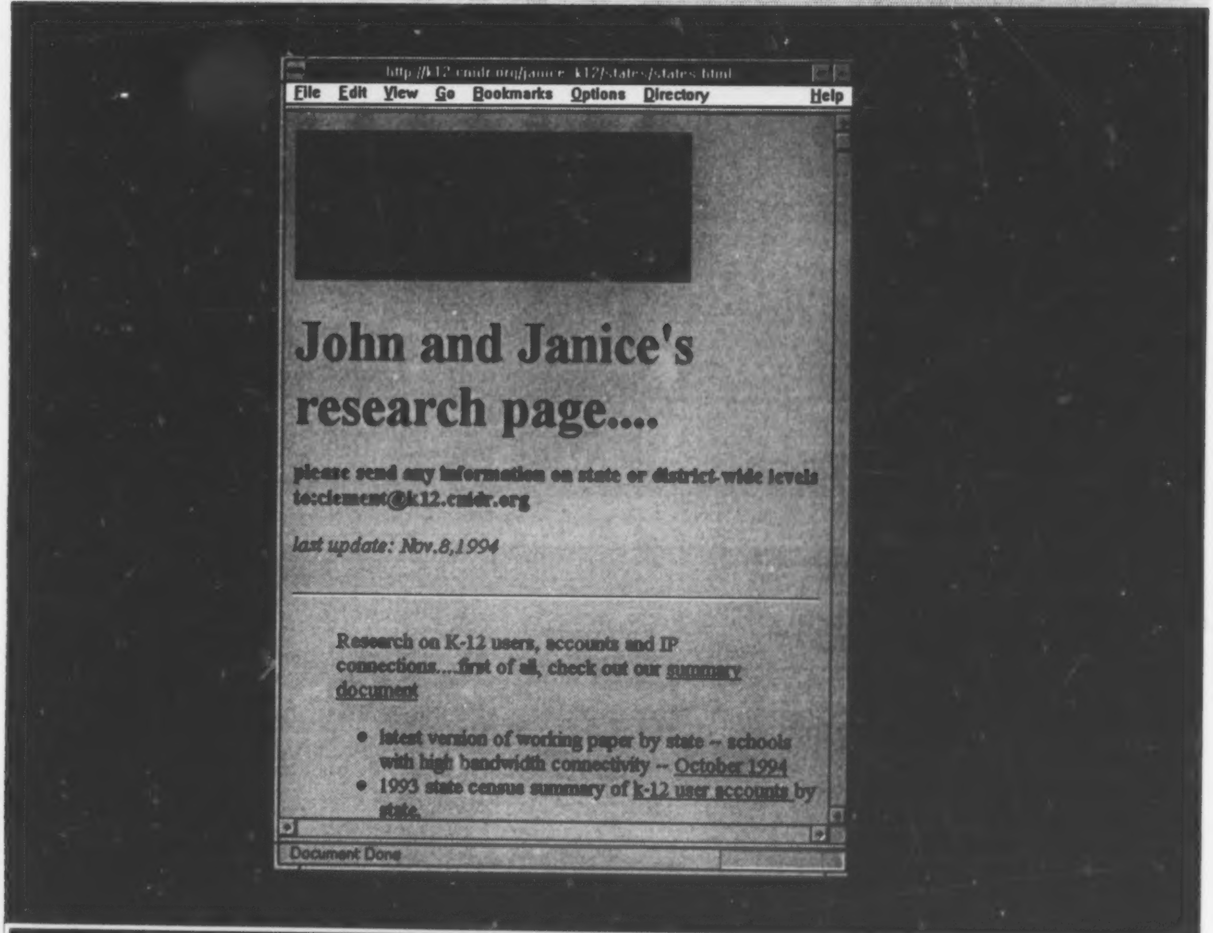
VISIT JOHN AND JANICE'S RESEARCH PAGE FOR STATISTICS ON EDUCATIONAL NETWORKING, Point to URL: http://k12.cnidr.org/janice_k12/states/states.html



John and Janice's research page....

please send any information on state or district-wide levels to:clement@k12.cnidr.org

last update: Nov.8,1994

Research on K-12 users, accounts and IP connections....first of all, check out our summary document

- latest version of working paper by state -- schools with high bandwidth connectivity -- October 1994
- 1993 state census summary of k-12 user accounts by state.

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

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Janet
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ISSN 1070-2954

NetTEACH NEWS

Volume 2, No. 7 The Newsletter for K-12 Networking Educators December 30, 1994

Mary's Song — Our Song of Survival

Botticelli's Madonna of the Magnificent. Located at URL: http://sunsite.unc.edu /louvre/paint/auth/botticelli/botticelli.madonna-of-the-magnificat.jpg

I have travelled many moonless nights. Cold and weary with a Babe inside and I wonder what I've done. Holy Father you have come and chosen me now to carry your son. ...I am frightened by the load I bear. In a world as cold as stone must I walk this path alone. Be with me now. ...Do you wonder as you watch my face if a wiser one should have had my place. But I offer all I am. For the mercy of your plan. Help me be strong. Help me be. Help me." (Excerpts from Breath of Heaven (Mary's Song) by Chris Eaton and Amy Grant, 1992 Clouseau Music.)

Throughout history, one image has intrigued artists of all lands—a mother and her babe, in arms. Christians, Jews, Moslems, Hindus, and Buddhists, are all united in their reverence of this image. All cultures seem to accept that the mystery of life begins in the womb of a woman, and assign women the task of nurturing that life to its adulthood.

There is perhaps no story more compelling than the story of Mary, the Mother of Jesus. Even non-Christians can appreciate through her story the courage and intense love of a mother for her child. The images of a young girl bearing the pain and ecstasy of childbirth in a humble shed on a cold winter's night, and later a woman in agony and yet with faith watching her son die on a cross for his revolutionary deeds remind us all that the love of a mother can be a very special, unselfish and courageous love.

Deborah Tannen, the author of "You Just Don't Understand" recently wrote an article for the Washington Post (The Talk of the Sandbox, in Outlook, C1, Sunday, December 11, 1994) and in it she discusses the differences in gender conversational ritual exhibited from the sandbox to the workplace.

Tannen discusses her interview of Bob Hoover, a journalist and a long-time youth baseball coach. Hoover revealed his observations about the differences between girl and boy attitudes towards sports. He observed,

(Continued on Next Page)

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"For boys, sports is a performance art. They're concerned how they look." In contrast, "girls want to win, but if they lose, they're still in it together."

Tanner goes on to suggest that "there is no one way of talking that will always work best. But understanding how conversational rituals work allows individuals to have more control over their lives."

When I read about these differences and their implications in the sandbox and workplace, I thought about Mary's Song, the Internet, and about a world where the dominant paradigm is one of cooperation and not competition, caring and not conquest, for the collective performance, and not for the individual performer. I wondered what the world would be like if those who governed and managed did so with the love and compassion of nurturers.

For centuries, the so-called "male" norms have dominated management and governing cultures. Those norms are based on competition, domination, deterrance, containment, physical strength, individual performance, and the elevation of one or a few powerful individual leaders or nations. We have accepted these without question and challenge, and have created institutions and reward systems that reflect and perpetuate these values and survival myths.

In the twentieth century, we "liberated" women to compete in the world of men on "men's" terms. We created the myth of the superwoman and smuggly noted her fall. The women who succeed in spite of all, for the most part succeed on terms that conflict with their inner selves and value systems. When they express dissatisfaction and disillusion, society holds this as evidence that women were just not meant to govern or manage.

We have the opportunity to challenge the dominant norms of governance and to truly liberate not just womankind but mankind. Internetworking technologies based on collaboration, cooperation, and interconnectiveness" are blind to gender, race, and ages, and thus offer men and women, and all peoples an equal voice and influence in matters of management and government.

However, presently, the Internet is dominated by males and the percentage of women on the nets has been projected as low as 10 percent of the total population. If these statistical approximations are true, then there is a significant gap that must be narrowed if the true potential of the Internet is to be realized as a liberator of the nurturing paradigm.

Girls and women have traditionally lagged behind men in their use and acceptance of technology but that is largely because females need a purpose for tinkering. The Internet provides a most compelling purpose for a female—the power to communicate across distances, cultures, and even genders. As we introduce this technology to young girls and women workers, we must incorporate this need in our training.

In time, internetworking females will work with internetworking males to maintain the horizontal revolution of the Internet, and will be able to have more "control over their lives". Internetworking females will have the opportunity to be who they are, and who they want to be, and perhaps at last males too will have the opportunity to be who they want to be.

This is beyond a gender issue, beyond a conversational ritual, beyond a style of managament and governance—-this is a foremost a matter of survival. The problems that threaten us all are global in nature and like the Internet are blind to gender, race, nationality, and age. In our unsafe homes, we watch the myths of power die daily on city streets and countrysides around the globe. Alone we are all vulnerable.

Now is the time for people and nations to reunite after all these centuries of senseless division and strife, and to once again consider the survival of the human race not in individual or national terms of winning or losing but as a collective and global opportunity to come together to prosper as one. Mary's Song is our song, everyone of us—male and female alike— must carry those future generations within us. We are all nurturers.

Editor: Kathy Rutkowski

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The ACTEIN REPORT — November 1994

by Michele Huston, ACTEIN Training Coordinator

Introduction

Within a few short years the Internet has reached into many areas of activity, often acting as an agent of profound change. This revolution is now happening within our primary and secondary school environment, and the Internet is now commencing to play its role in creating a new model for the classroom across the globe.

The deployment of such technologies into the Australian education environment has been very limited to date, yet it is in this environment that perhaps the most striking developments can be undertaken, and the essential groundwork accomplished for the longer term productive integration of information technologies into our society. Accordingly there is much that has to be accomplished to ensure that we can sensibly realize the opportunities such technologies offer to the classroom and the children. At this stage the efforts to utilize communications networks within the K-12 educational environment are largely pioneering efforts carried out by dedicated individuals, which bear many of the hallmarks of experimental projects rather than of wide scale programs. However there are valuable lessons to be gleaned from these efforts in terms of selecting appropriate paradigms for subsequent wider deployment.

One such pioneering effort is the Australian Capital Territory Education Information Network (ACTEIN) program, a collaborative initiative to introduce the Internet to primary and secondary schools in the Australian Capital Territory. The program's main direction is not solely in the provision of Internet access by itself, but in attempting to address the issue of how the Internet can be put to work in the classroom, consequently the ACTEIN Program has a strong emphasis on technical and training support to accompany low cost Internet access. Internet trainers visit the schools as the need dictates until the teaching staff feel confident in the use of the software and navigation of the Internet. Further support is provided through mailing lists and user group meetings. The entire effort of training is directed at both basic literacy skills in navigating the Internet's resources, and also at developing the human skills to meet and work with others on the Internet, providing a high level of personal motivation and commitment through a rich set of personal contacts and shared activities.

ACTEIN Background

The Australian Capital Territory Education Information Network (ACTEIN) Program is a collaborative venture between the four Universities within the ACT: the Australian National University, the University of Canberra, the Australian Defence Force Academy and the Australian Catholic University.

The project evolved from a number developments, though its inception largely came from a mutual interest within the Australian National University, the University of Canberra and the Australian Defence Force Academy in the establishment of a broadly-based ACT network linking public and private organization in the ACT to each other and into AARNet and the Internet.

From these initial discussions evolved the plans for the ACT Education Information Network (ACTEIN) pilot program to provide Internet access to schools in the ACT. The aim of the ACTEIN pilot was to examine in collaboration with members of the ACT teaching community the educational benefits of Internet access and indeed the feasibility of Internet access to the K-12 education environment. The schools were selected from the independent and government sectors and spanned the range from Kindergarten through to year 12.

The pilot program to introduce the Internet to the ACT K-12 education environment began in May 1994 with the provision of dialup IP Internet access to 16 primary and secondary schools and the O'Connell Education Centre (the ACT education resource centre) located in Canberra, Australia.

Objectives of the ACTEIN Pilot Program

The ACTEIN Pilot Program aimed;

- to create a self-sustaining core of Internet expertise in each school.
- to work collaboratively with the teaching staff at the schools to examine the educational benefit of Internet access to the K12 education sector.
- to provide informed information to organization looking to provide Internet access to K-12 schools.

(See **ACTEIN**, *page 21)*

INFOBYTES

Networking Technologies for Science Education — BBN Awarded An NSF Grant

Recently, the National Science Foundation awarded BBN Systems and Technologies, a division of Beranek and Newman Inc. a $523,000 contract to develop new networking technologies for use in science and math education.

BBN will use the funding to develop MuseNet, an interactive, multimedia communications environment that is accessible simultaneously by multiple users over a computer network. MuseNet will support instructional interactions centered on student work with scientific and mathematical "microworlds," which include visual simulations, models, and computational capabilities. Instructional programs will be distributed through network servers for local operation on client machines. The technology will also serve as a pilot facility for investigating the technical and educational issues posed by high-bandwidth networks.

The MuseNet project will include an educational experiment involving an "Explorer Muse" on-line educational facility, which will foster collaboration in developing science modeling activites. Teachers and students from another BBN educational project, called the BBN Community of Explorers, will participate. The experiment will measure the extent and depth of collaboration among the participants.

For more information about MuseNet and BBN Systems and Technologies, contact:

Karen Nelson
Tel: + 1 617/873-5621
E-Mail: knelson@bbn.com

Donna M. Lane
Tel: +1 617/873-2559
E-Mail: dlane@bbn.com

BBN Systems and Technologies
10 Moulton Street
Cambridge, MA 02138 USA

◆ ◆ ◆

CATALPA — The Library of The New York Botanical Garden is now available on the Internet

CATALPA, the CATAlog for Library Public Access, the online catalog of the Library of The New York Botanical Garden, Bronx, NY, is now available on the Internet.

Telnet to librisc.nybg.org OR 192.77.202.200

Login as "library"

CATALPA represents almost 110,000 titles of books and journals in the fields of botany, horticulture and landscape design, a collection of over 250,000 titles. The Library's particular strengths are plant systematics, floristics, plant ecology, the history of botany, horticulture and gardening, biography of people in the plant sciences and garden and landscape design.

All records in CATALPA have been reported to OCLC, and a tapeload to RLIN is underway. The Library of The New York Botanical Garden offers a full range of reference and information services, including interlibrary loan, and is open for public use Tuesday through Sunday.

For additional information about CATALPA and the Library, contact John F. Reed, Director of the Library, <jfreed@nybg.org> ; call: + 1(718) 817-8729 or write to The Library of The New York Botanical Garden, Bronx, NY 10458.

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MegaMath's Home Page Is Now Located at URL:http://www.c3.lanl.gov/mega-math

INFOBYTES

PIONEERING PARTNERS LOOKING FOR INNOVATIVE TEACHERS

All innovative educators from the eight Grake Lake States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin who have creatively used teamwork and technology in their classrooms are encouraged to apply for more than $400,000 in regional grants and scholarships, through Pioneering Partners for Educational Technology.

Created in 1991 by the Council of Great Lakes Governors and GET, Pioneering Partners seeks to identify educators who have used technology creatively to change the way students learn and teachers teach.

Winning teams receive a $3000 base grant and another $2000 in matching funds when a comparable amount is raised by the team. The funds are used to help disseminate their success stories.

Winners also receive special training at a summer Partnership and Educational Summit to provide them with skills to further their innovations and efforts to change the system of education.

For applications and additional information, write to: Pioneering Partners/GTE Telephone Operations/ MC:INAAAJZ/19845 U.S. 31 North/ Westfield, IN 46074. The application deadline is April 12.

(Online info also available via gopher by going to Other Gophers/CicNet/Other CicNet projects/GreatLinks Pioneering)

◆ ◆ ◆

EDUTOPIA Newsletter Available Via the Internet from The George Lucas Education Foundation

Edutopia and information about The George Lucas Educational Foundation are now available via the Internet.

For gopher users, point to: **gopher.glef.org**

For Web surfers navigate to URL: **www.glef.org**

For more information about Edutopia or The George Lucas Foundation, send e-mail to:

< edutopia@glef.org>

or call +1 (415) 662-1600.

USA Nation Host To Coordinate Participation In European Telecom R&D

A new group, the USA National Host, has been formed to permit US companies to participate in European advanced communications research and development. The USA-NH will be the fulcrum for US participation in the upcoming European Union's Advanced Communication Technology and Services (ACTS) Program.

For the first time, the E.U. has opened its partnerships to transnational firms working outside of Europe The ACTS workplan emphasizes that telecommunications is "global in scale and requires therefore a common understanding and a minimum set of agreements at a global level." ACTS projects will address technical feasibility, usefulness, desirability, and economic impact.

The members of the USA National Host are the MIT Research Program on Communications Policy (RPCP), University of Pennsylvania Distributed Systems Lab, University of Illinois National Center for Supercomputing Applications (NCSA), and the National Media Lab (NML), in cooperation with Distributed Simulations.

The USA National Host builds on current work with MIT's Networked Multimedia Information Server (NMIS), NCSA's "Mosaic" World Wide Web interface and related tools, Penn's "PlayPenn" activities in distributed high-performance computing and broadband networking, and NML's support of advanced high-capacity data storage activities.

The USA National Host will give participating companies a unique and direct access to the European market, specifically to ACTS projects. With greater access to E.U. activities, companies will have the earliest chance of formulating advanced communications standards and services.

MIT Research Program on Communications Policy, University of Illinois National Center for Supercomputing Applications , University of Pennsylvania Distributed Systems Laboratory National Media Laboratory

For further information on membership, call Clark Johnson, tel: +1-617-253-4138 (after Dec 21 +1-617-258-7270), FAX +1-617-253-7326, cjohnson@snap.org.

Edulists

WWWEDU, an unmoderated list dedicated to the use of the World Wide Web in education.

WWWEDU is sponsored by The Coalition for Networked Information Discovery and Retrieval (CNIDR) and The Corporation for Public Broadcasting. The purpose of WWWEDU is to offer educators, webmasters and policy makers a continuous discussion on the potential of World-Wide Web use in education.

Potential questions are: What are teachers and students doing with the Web today? How can the structure of the Web positively affect learning and assessment? What else can be done to expand the Web's role in education? And how can we encourage non-Web using schools and educators to take advantage of this new tool? WWWEDU will hopefully provide a forum for these questions and others as they come up.

WWWEDU is targeted for use by educators, as well as webmasters and web providers, but anyone with a keen interest in the use of Web methodology in education is welcome to join. The group is maintained by Andy Carvin, education and information technology specialist at the Corporation for Public Broadcasting and author of EdWeb (http://edweb.cnidr.org). Discussion is unmoderated, so anyone may jump in at any time to begin a new topic. Standard netiquette applies at all times, and flaming will not be tolerated.

To join WWWEDU, send a message to listserv@k12.cnidr.org and in the body of the message write

subscribe wwwedu (your name)

You will then be added to the WWWEDU list.

When you first join WWWEDU, you are invited to post an introduction of yourself to the group, and feel free to suggest any discussion topics. You may post at any time by sending a message to wwwedu@k12.cnidr.org.

WWWEDU Owner:
Andy Carvin
The Corporation for Public Broadcasting
acarvin@k12.cnidr.org

EDRES-L is a moderated forum to announce, describe, and evaluate educational resources available on the Internet. Its companion list, EDRES-DB, functions as a database for these resources.

Archives of some EDRES-L posts are kept on EDRES-DB. EDRES-L itself is not archived, though it contains some retrievable files. More substantial files are kept on EDRES-DB. You may obtain a list of these files by sending the commands

INDEX EDRES-L
INDEX EDRES-DB

in the BODY of e-mail to LISTSERV@UNBVM1 on BITNET or to LISTSERV@UNB.CA on the Internet.

To subscribe, send the following command in the BODY of mail to LISTSERV@UNBVM1 on BITNET or LISTSERV@UNB.CA on the Internet:

SUB EDRES-L yourfirstname yourlastname

Archived files for EDRES-DB include instructions and Listserv templates for searching EDRES-DB's database. For initial information send the command

GET EDRES-DB FAQ

in the BODY of e-mail to LISTSERV@UNBVM1 on BITNET or to LISTSERV@UNB.CA on the Internet.

NOTE: You cannot subscribe to EDRES-DB; you can only search and retrieve from its database.

Owners/Editors:
Anne Ryan <s3t0@unb.ca>
Don Soucy <dsoucy@unb.ca>

Edulists

WEB4Lib is a new electronic discussion for library-based World-Wide Web developers and managers created by Information Systems Instruction & Support (ISIS) of the UC Berkeley Library. describe the list.

To subscribe, send the message "SUB Web4Lib <your name>" (substituting your name for <your name>) to:listserv@library.berkeley.edu, leaving the subject field blank.

The Web4Lib electronic discussion exists to foster discussion of issues relating to the creation and management of library-based World-Wide Web servers and clients. Particulary appropriate issues for discussion include, but are not limited to:

- web resource selection and information mounting in relation to existing acquisition and collection development procedures
- cataloging issues regarding web information
- in-house patron access to web servers (e.g., Mosaic on patron-accessible computers)
- using the web ISMAP feature to provide library information keyed to a building floorplan

Web4Lib is specifically aimed toward librarians and library staff involved in World-Wide Web management, but anyone is welcome to join the discussion.

INFORMATION SYSTEMS INSTRUCTION & SUPPORT
The Library, 385 Doe
University of California
Berkeley, CA 94720-6000
(510) 643-9494

Listowners:

Roy Tennant, Head
<rtennant@library.berkeley.edu>

Lisa Rowlison, Instructional Services Coordinator
<lrowliso@library.berkeley.edu>

John Ober, Network Resources Librarian
<jober@library.berkeley.edu>

K12-EURO-TEACHERS is a (loosely) moderated mailing list. It's purpose is the exchange of information related to K12 (Kindergarten to 12th Grade) education/ educators, and to promote the use of school related data communications in Europe. It thus is complimentary to the K12 hierarchy of news groups (echomail) available through Usenet and FidoNet.

Besides original messages exchanged between the participants, this list will also contain cross-postings from other mailing lists and Usenet News groups related to the subject mentioned above and which are directly applicable to both 'K-12' curriculum AND 'Europe'.

Although english seems to be the inevitable "lingua franca", participants are invited (and encouraged) to use any other (european) language if they feel this serves their purpose best, or allows them to express themselves more clearly.

This mailing list is also distributed through FidoNet as an echomail conference. Thus it will not be sent to subscribers in the fidonet.org domain. FidoNet users, please check with your regional echomail coordinator for the K12.EURO. TEACHERS conference or at any 2:nn/777 node in Europe. (Note the different tag name !) At the present time (Feb.'94) K12.EURO.TEACHERS is distributed to FidoNet BBS's in a dozen European countries.

Send e-mail to Majordomo@lists.eunet.fi containing the line :

subscribe K12-EURO-TEACHERS

in the body of your message

To get a full listing of all the participants send a message to Majordomo@lists.eunet.fi, and put the following line in the main body of your message

who k12-euro-teachers

Listowner:
Louis Van Geel
< lvg@k12.be>

EduNets

Computer Pals Across the World - (CPAW)
A Global Education Network

Computer Pals is a global network which connects students, teachers and seniors around the world. Originally operating on Dialcom, a multi-national telecommunications network, CPAW has recently expanded its horizons through the Internet - an international network of networks originally established to link institutions of higher learning.

CPAW began as a writing project established between a school in Australia and one in Alaska. It has since grown in terms of the number of countries involved and in terms of its objectives. Member countries include England, France, Japan, Canada, the U.S., Australia, Indonesia, Portugal, Germany, and many more.Today, CPAW members link together, as individuals or as groups, to share experiences, ideas, investigations and projects. For example, classes frequently devise projects which involve the gathering of data in various parts of the world to then interpret it and share their findings. Sometimes the projects are based on surveys regarding a wide range of topics such as the environment, peace initiatives, racism or city planning. A group studying a particular part of the world may seek keypals in that country.

To join, send a message to Canadian Director, Trish Main, at **PMAIN@SFU.CA** (Internet) or at 2020:LSP001 (Dialcom) and include the following information:

Your Name:
School or Organization Name:
School or Organization Address:

City:
Province
Postal Code:
Voice Phone Number:
Fax Number:

Annual membership in Canada is $30. The fee is payable by September 30 for the school year. Membership fees entitle you to receive the monthly newsletter and online support regarding projects and general information.

I*EARN — International Education Resource Network

I*EARN (the International Education and Resource Network) is an international telecommunications network of over 400 primary and secondary schools in 21 counties. The purpose of I*EARN is to empower teachers and students by helping them discover ways that they can make a meaningful difference in the health and welfare of people and the planet earth.

I*EARN utilizes all available telecommunication technologies to connect students and teachers including e-mail, telex, fax, proprietary networks such as America OnLine and Compuserve and also the Internet.

Students and teachers work on collaborative projects primarily through threaded on-line conferences. Some of the on-going I*EARN projects include: First Peoples Project, Holocaust/Genocide Project, Clean Water for Nicaragua Project, Rainforest Project, The Contemporary (A Global News Magazine—open to middle and high schools), Planetary Notions (A newsletter of environmental issues and action worldwide), and "A Vision" (An International Literary Anthology.

The minimal equipment requirements are: any personal computer able to accommodate connection to a modem, modem (internal or external) with cable to phone line, and telecommunication software.

Participation is open to schools (K-12) and for youth-service organizations.

For more information and an application, write:
I*EARN—International Secretariat
345 Kear Street
Yorktown Heights, New York 10598 USA
Tel: +1 914/962-5864
Fax: +1 914/962-6472

Send e-mail requests to:

<iearn@copenfund.igc.apc.org>

Youth Environmental Summit

This Spring, six-hundred young people from all around the globe will travel to Loveland, Colorado. What is now a small, quiet town will be magically transformed into the World Youth Center to Save the Earth. While you are reading this, an incredible group of young people are working long hours to make this event become a reality. The dreams and aspirations of these caring youth will create a pathway for future generations to follow. Some say that the youth are the leaders of tomorrow, but we believe that we are the leaders of today.

We appeal to you to help us identify young people from around the world who would like to participate in the 1995 Global Youth Environmental Summit in Loveland, Colorado, from June 24th through 30th, 1995. Please let students and friends know about this incredible event! You can help by redistributing this letter to other groups you think would benefit from knowing about the Summit. Please do not post to any newsgroups, we will distribute to specific newsgroups and try to minimize cross postings.

Already applications have poured in from every continent of the globe. From Azerbajahn to Zambia, the world's youth are preparing to empower each other and to learn how they can effectively work to accomplish a sustainable future.

For more info about the Summit and to learn how you can become an active participant, please write to:

1995 Global Youth Environmental Summit
Thompson Valley High School
1669 Eagle Dr.
Loveland, CO 80537
(303) 593-0599 (phone and FAX)

or email us at:

yes@pr1.k12.co.us -or- earth@igc.apc.org

A Fact Sheet and Application for the Summit are available via email. Send email to:

yes.facts@pr1.k12.co.us -and/or-
yes.app@pr1.k12.co.usour

For more information navigate to URL:

http://www.pr1.k12.co.us/yes.html

Youth Can'95

Youth CaN 95 (Youth Communication and Networking 1995) will be the third annual international gathering of young people using or seeking to use telecommunications and global networking in their environmental work. Youth CaN '95 will be held on April 28, 1995 at the American Museum of Natural History in New York City. Over 1,000 students, teachers and representatives of envirnomental groups are expected to attend.

Youth CaN '95 will build on the successful Youth CaN 94, at which 750 young people attended a day of 22 workshops by youth groups. The workshops covered environmental networking, telecommunications training and interactive video-telephone links with young people in nine countries around the world.

The goals of Youth CaN '95 are to:

- bring together youth-oriented environmental groups and organizations who use telecommunications in their work
- provide opportunities for young people from these groups to display their projects through presentations, demonstrations, hands-on workshops and discussion groups
- demonstrate, through interactive links with youth groups around the world the power of computer networking and other telecommunications media as tools for environmental action, research and cross-cultural communication with educators, UN officials, youth groups and NGO's
- foster sustained networking among youth participants for future events and projects.
- collect and distribute statements from participants from around the world on what young people are doing in their communities to address environmental issues

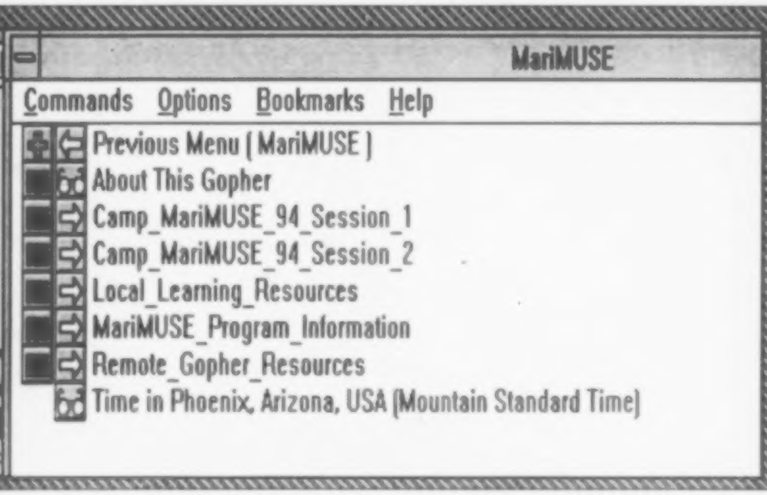
Theme for Youth CaN '95: H.E.L.P. (Help Earth Live and Prosper) This year's theme will be restoring and protecting the earth. Students from around the world will be asked to share their projects that focus on restoring damaged ecosystems, creating habitats, or protecting existing wildlife. .

Youth CaN '95 is open to young people using (or hoping to use) "any" telecommunications network.

For Information on Youth CaN '95:
youthcan@igc.apc.org

MariMUSE GOPHER

Navigate to Other Gophers/North America/US/Arizona/MariMUSE

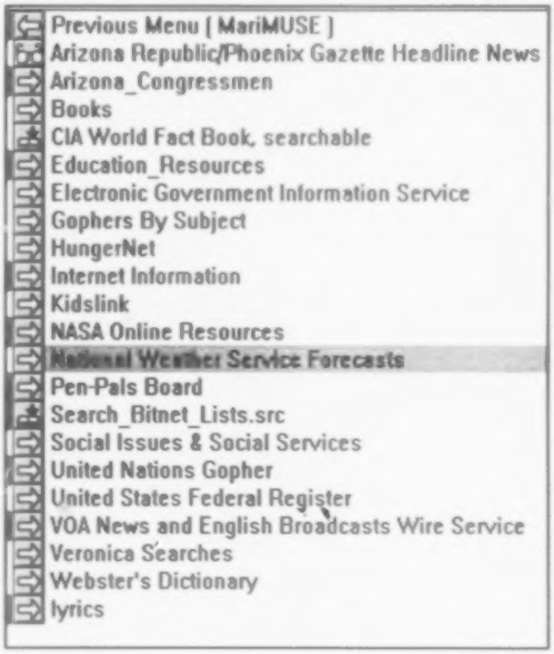


- Previous Menu [MariMUSE]
- About This Gopher
- Camp_MariMUSE_94_Session_1
- Camp_MariMUSE_94_Session_2
- Local_Learning_Resources
- MariMUSE_Program_Information
- Remote_Gopher_Resources
- Time in Phoenix, Arizona, USA [Mountain Standard Time]

This is the gopher of the MariMUSE Global Learning Collaboratory located at Phoenix College, one of the Maricopa Community College Colleges in Arizona. This gopher is designed to serve the educational needs of a growing community of learners from ages 5 to 99. Parts of this gopher are being designed as student projects while others are pointers to resources that are useful to teachers and students.

MariMUSE is a new program at Phoenix College. The program is under development, but is best described as a "Global Learning Collaboratory." It is dedicated to learning - which on the net denotes a global quality. It is a living laboratory where collaboration is the primary process, thus the term 'collaboratory'.

Student writings can be found in the Camp MariMUSE sections and in the Local Resources. Also check out the Remote Other Gophers and find links to: CIA World Book, HungerNet, Kidslink, Pen-Pals Board, United Nations Gopher, and VOA News and English Broadcasts Wire Services, etc.



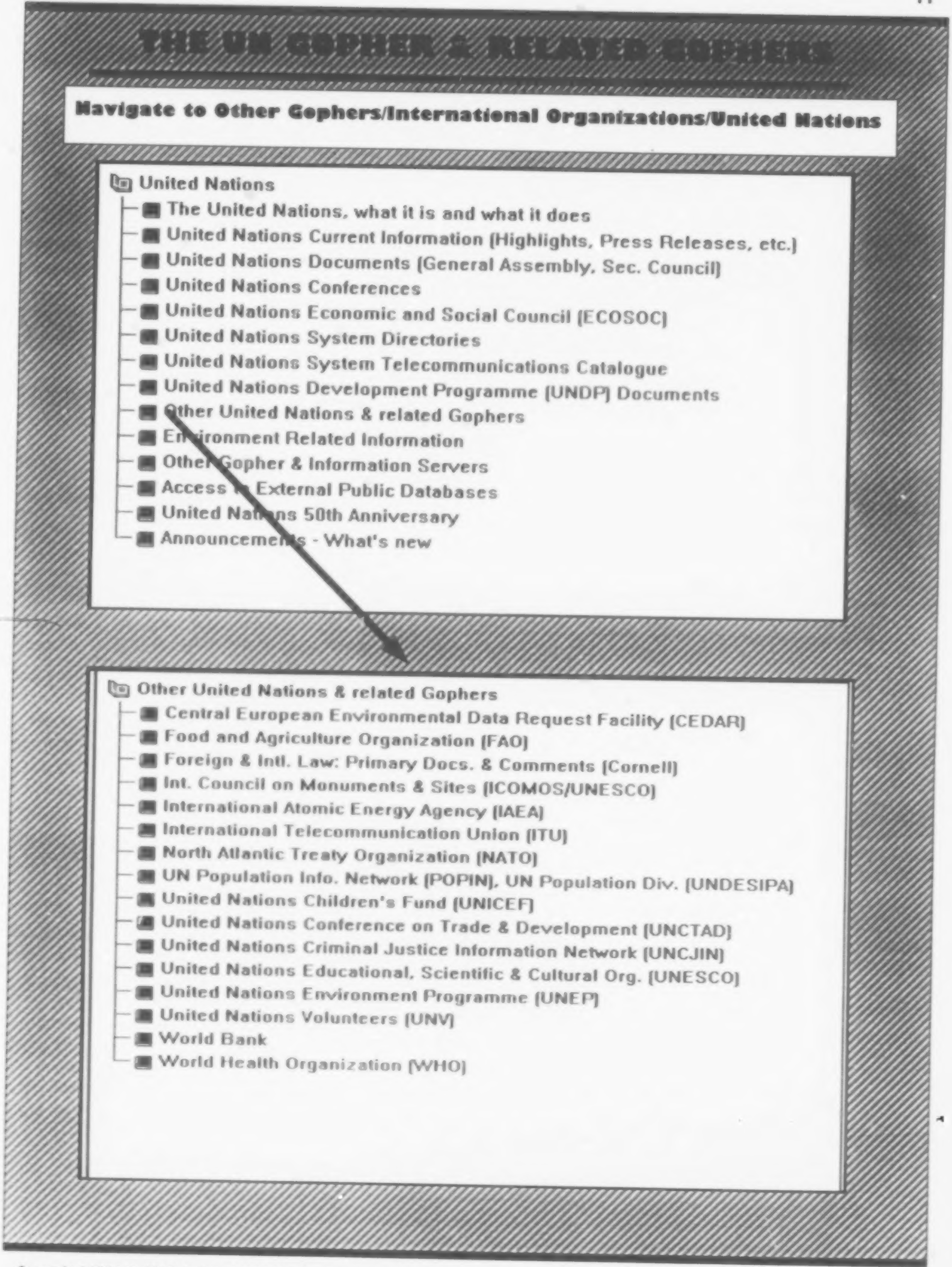
- Previous Menu [MariMUSE]
- Arizona Republic/Phoenix Gazette Headline News
- Arizona_Congressmen
- Books
- CIA World Fact Book, searchable
- Education_Resources
- Electronic Government Information Service
- Gophers By Subject
- HungerNet
- Internet Information
- Kidslink
- NASA Online Resources
- National Weather Service Forecasts
- Pen-Pals Board
- Search_Bitnet_Lists.src
- Social Issues & Social Services
- United Nations Gopher
- United States Federal Register
- VOA News and English Broadcasts Wire Service
- Veronica Searches
- Webster's Dictionary
- lyrics

If you have questions or comments, please send e-mail to Jim Walters, MariMUSE Program Director

<walters@pc2.pc.maricopa.edu>

THE UN GOPHER & RELATED GOPHERS

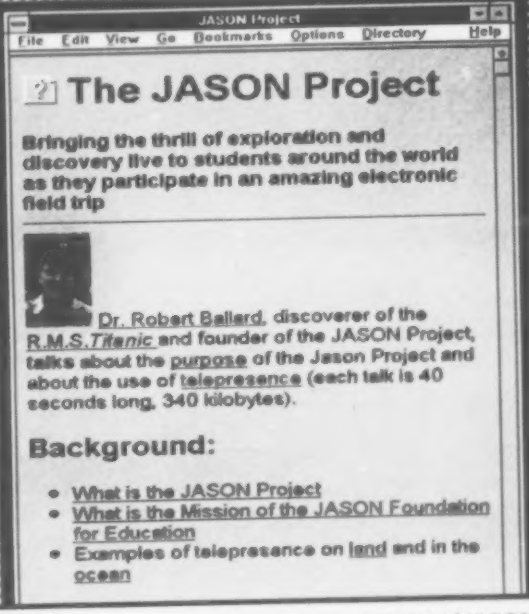
Navigate to Other Gophers/International Organizations/United Nations



United Nations
- The United Nations, what it is and what it does
- United Nations Current Information (Highlights, Press Releases, etc.)
- United Nations Documents (General Assembly, Sec. Council)
- United Nations Conferences
- United Nations Economic and Social Council (ECOSOC)
- United Nations System Directories
- United Nations System Telecommunications Catalogue
- United Nations Development Programme (UNDP) Documents
- Other United Nations & related Gophers
- Environment Related Information
- Other Gopher & Information Servers
- Access to External Public Databases
- United Nations 50th Anniversary
- Announcements - What's new

Other United Nations & related Gophers
- Central European Environmental Data Request Facility (CEDAR)
- Food and Agriculture Organization (FAO)
- Foreign & Intl. Law: Primary Docs. & Comments (Cornell)
- Int. Council on Monuments & Sites (ICOMOS/UNESCO)
- International Atomic Energy Agency (IAEA)
- International Telecommunication Union (ITU)
- North Atlantic Treaty Organization (NATO)
- UN Population Info. Network (POPIN), UN Population Div. (UNDESIPA)
- United Nations Children's Fund (UNICEF)
- United Nations Conference on Trade & Development (UNCTAD)
- United Nations Criminal Justice Information Network (UNCJIN)
- United Nations Educational, Scientific & Cultural Org. (UNESCO)
- United Nations Environment Programme (UNEP)
- United Nations Volunteers (UNV)
- World Bank
- World Health Organization (WHO)

Global NetProject— JASON VI: Island Earth



The JASON Project

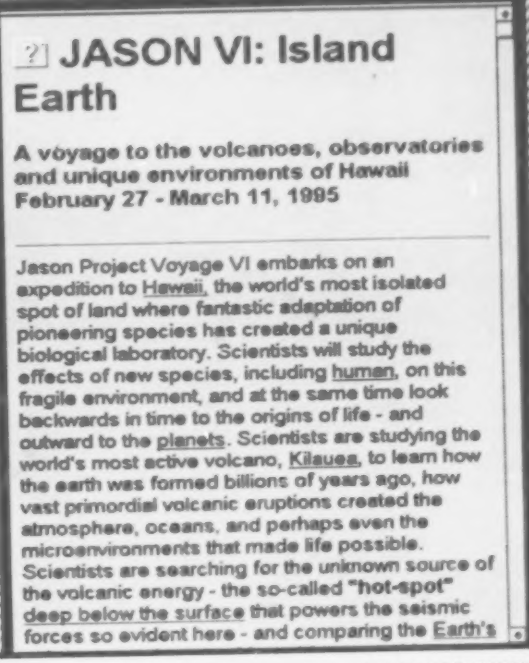
Bringing the thrill of exploration and discovery live to students around the world as they participate in an amazing electronic field trip

Dr. Robert Ballard, discoverer of the R.M.S.*Titanic* and founder of the JASON Project, talks about the purpose of the Jason Project and about the use of telepresence (each talk is 40 seconds long, 340 kilobytes).

Background:

- What is the JASON Project
- What is the Mission of the JASON Foundation for Education
- Examples of telepresence on land and in the ocean

URL:http://seawifs.gsfc.nasa.gov/JASON/JASON_HOME.html



JASON VI: Island Earth

A voyage to the volcanoes, observatories and unique environments of Hawaii
February 27 - March 11, 1995

Jason Project Voyage VI embarks on an expedition to Hawaii, the world's most isolated spot of land where fantastic adaptation of pioneering species has created a unique biological laboratory. Scientists will study the effects of new species, including human, on this fragile environment, and at the same time look backwards in time to the origins of life - and outward to the planets. Scientists are studying the world's most active volcano, Kilauea, to learn how the earth was formed billions of years ago, how vast primordial volcanic eruptions created the atmosphere, oceans, and perhaps even the microenvironments that made life possible. Scientists are searching for the unknown source of the volcanic energy - the so-called "hot-spot" deep below the surface that powers the seismic forces so evident here - and comparing the Earth's

URL:http://seawifs.gsfc.nasa.gov/JASON/JASON6/JASON6.html

Dr. Robert Ballard, the discover of the RMS Titanic, founded the JASON Project in 1989. The mission of the JASON Foundation for Education, founded in 1990 to administer the program, is to excite and engage students in science and technology and to motivate and train their teachers. The JASON Project does this by developing yearly programs of science and technology curriculums to prepare students for two-week interactive electronic field trips during which students are participants in actual scientific expeditions.

In May 1989, the **JASON Project Voyage I** took students on a **Mediterranean Sea** Odyssey to discover hydrothermal vents and examine an ancient Roman shipwreck.

In May 1990, the **JASON Project Voyage II**
took students to the bottom of **Lake Ontario** to look for two War of 1812 warships.

In December 1991, the **JASON Project Voyage III** took students to the **Galapagos** Islands to follow in the footsteps of Charles Darwin.

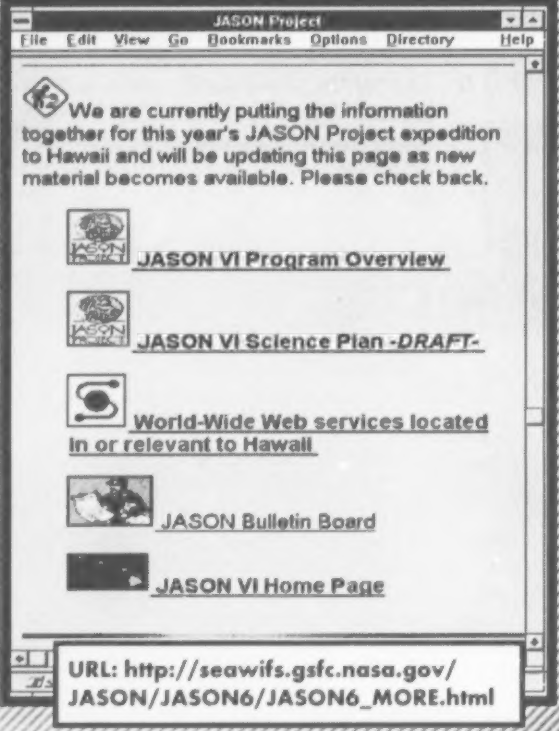
In March of 1993, **JASON Project IV** brought students to two sites along Mexico's **Baja California** Peninsula.

From February 28-March 12, 1994, **JASON Project Voyage V** travelled to **Belize** to explore a rainforest, one of the largest barrier reefs in the Western Hemisphere, and an ancient Mayan city.

From February 27-March 11, 1995, **JASON Project Voyage VI** heads to **Hawaii** where students will share with scientists a visit to one of the world's most unique biospheres to investigate how species adapt and evolve, and will also study Kilauea, the world's most active volcano, to look for the so-called "hot-spot" deep below the earth's surface.

13102 Weather Vane Way, Herndon, VA 22071 <info@netteach.chaos.com> tel: +1 703-471-0593 ISSN 1070-2954

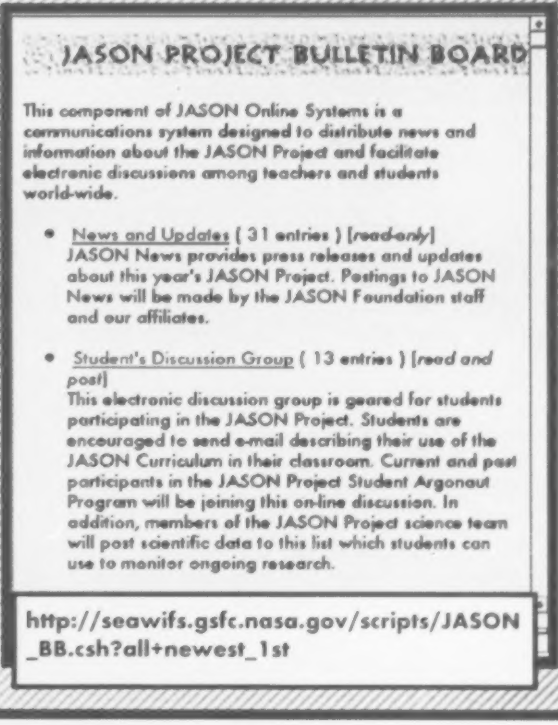
Global NetProject— JASON VI: Island Earth



We are currently putting the information together for this year's JASON Project expedition to Hawaii and will be updating this page as new material becomes available. Please check back.

- JASON VI Program Overview
- JASON VI Science Plan *-DRAFT-*
- World-Wide Web services located in or relevant to Hawaii
- JASON Bulletin Board
- JASON VI Home Page

URL: http://seawifs.gsfc.nasa.gov/JASON/JASON6/JASON6_MORE.html



JASON PROJECT BULLETIN BOARD

This component of JASON Online Systems is a communications system designed to distribute news and information about the JASON Project and facilitate electronic discussions among teachers and students world-wide.

- News and Updates (31 entries) [*read-only*]
  JASON News provides press releases and updates about this year's JASON Project. Postings to JASON News will be made by the JASON Foundation staff and our affiliates.
- Student's Discussion Group (13 entries) [*read and post*]
  This electronic discussion group is geared for students participating in the JASON Project. Students are encouraged to send e-mail describing their use of the JASON Curriculum in their classroom. Current and past participants in the JASON Project Student Argonaut Program will be joining this on-line discussion. In addition, members of the JASON Project science team will post scientific data to this list which students can use to monitor ongoing research.

http://seawifs.gsfc.nasa.gov/scripts/JASON_BB.csh?all+newest_1st

The Jason Project

JASON ONLINE: Bulletin Board and E-mail systems

TELNET TOPCAT.BSC.MASS.EDU or 134.241.41.3
Username: JASON
Password: guest

JASON ONLINE, a computer mediated communication (CMC) system, is an integral component of a comprehensive, national teacher in-service training program administered by the JASON Foundation for Education and sponsored through the Eisenhower National Program for Mathematics and Science Education, United States Department of Education.

JASON ONLINE is designed to introduce teachers to the world of telecommunicating and to provide additional resources such as classroom tips, lesson ideas, and online support for teachers using the JASON Project and the JASON curriculum. JASON ONLINE provides teachers with two services or tools:

1) JASON E-MAIL SYSTEM -- a network linking teachers around the world with other computer users, including scientists, teachers, and others.

2) JASON BULLETIN BOARD SYSTEM -- a forum for teachers to share ideas such as classroom tips, lesson ideas, and updated information on JASON expeditions.

(a) JASON Project Student Forum —is a newsgroup that serves as an on-line forum for students interested in the JASON project. Students are invited to post an introduction to themself, their school, or their classroom, and to send comments to: jason-stu@acme.fred.org

(b) Teacher's Forum is an on-line forum for teachers using the JASON Project and the JASON curriculum. Teachers are encouraged to share their experiences as well as news about special classroom projects they have designed. Post messages to: jason-teach@acme.fred.org

Web surfers can turn to URL:
http://seawifs.gsfc.nasa.gov/scripts/JASON_BB.csh?all+newest_1st+news+000000000000
for up-to-date information on the JASON PROJECT BULLETIN BOARDS.

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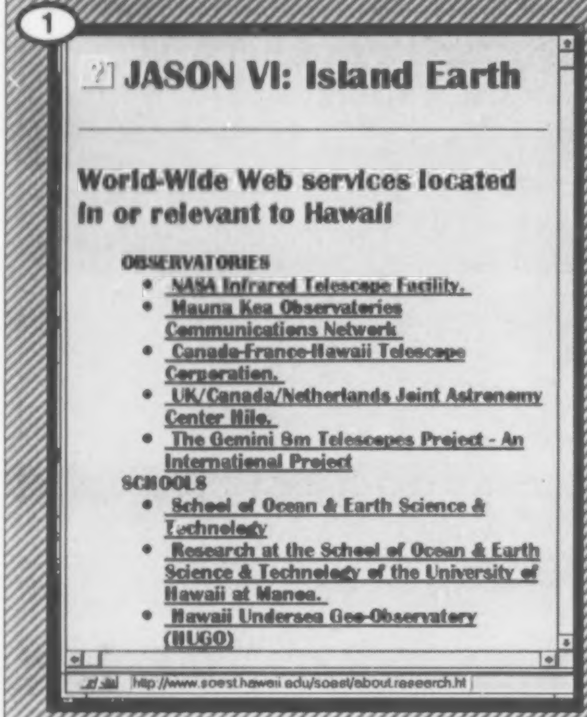
JASON VI: Island Earth – Related Web Sites



JASON VI: Island Earth

World-Wide Web services located in or relevant to Hawaii

OBSERVATORIES
- NASA Infrared Telescope Facility.
- Mauna Kea Observatories Communications Network
- Canada-France-Hawaii Telescope Corporation.
- UK/Canada/Netherlands Joint Astronomy Center Hilo.
- The Gemini 8m Telescopes Project - An International Project

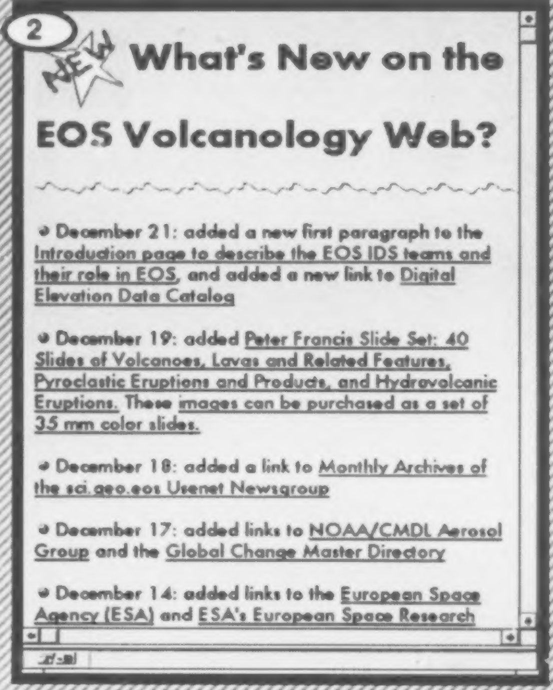
SCHOOLS
- School of Ocean & Earth Science & Technology
- Research at the School of Ocean & Earth Science & Technology of the University of Hawaii at Manoa.
- Hawaii Undersea Geo-Observatory (HUGO)

http://www.soest.hawaii.edu/soest/about.research.ht

❶ **JASON VI: Island Earth. Links to related WWW servers. URL: http://seawifs.gsfc.nasa.gov/JASON/JASON6/JASON6_LINKS.html**

❷ **What's New on NASA's EOS Volcanology Web—links to some interesting places. URL:http://www.geo.mtu.edu/eos/whatsnew.html**

❸ **US Geological Survey's Cascades Volcano Observatory. Note Eruption in Progress! URL: http://vulcan.wr.usgs.gov/home.html**



What's New on the EOS Volcanology Web?

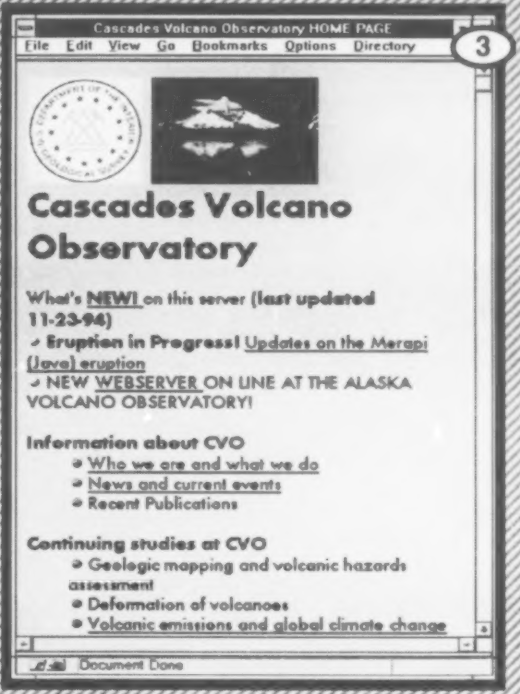
December 21: added a new first paragraph to the Introduction page to describe the EOS IDS teams and their role in EOS, and added a new link to Digital Elevation Data Catalog

December 19: added Peter Francis Slide Set: 40 Slides of Volcanoes, Lavas and Related Features, Pyroclastic Eruptions and Products, and Hydrovolcanic Eruptions. These images can be purchased as a set of 35 mm color slides.

December 18: added a link to Monthly Archives of the sci.geo.eos Usenet Newsgroup

December 17: added links to NOAA/CMDL Aerosol Group and the Global Change Master Directory

December 14: added links to the European Space Agency (ESA) and ESA's European Space Research



Cascades Volcano Observatory

What's NEW! on this server (last updated 11-23-94)
- Eruption in Progress! Updates on the Merapi (Java) eruption
- NEW WEBSERVER ON LINE AT THE ALASKA VOLCANO OBSERVATORY!

Information about CVO
- Who we are and what we do
- News and current events
- Recent Publications

Continuing studies at CVO
- Geologic mapping and volcanic hazards assessment
- Deformation of volcanoes
- Volcanic emissions and global climate change

Document Done

JASON VI: Island Earth — Hawaii

1. Hawaii Volcanoes National Park at URL:http://bookweb.cwis.uci.edu:8042/Books/Moon/volcanoes.html
2. Big Island of Hawaii—from the Moon Travel Handbook by J.D. Bisignani. Hpertext version by J.K. Cohen, D. Hurst, abd B. Newlin at URL: http://bookweb.cwis.uci.edu:8042/Books/Moon/hawaii.html
3. Hawai'i, the Aloha State Maps (Images with clicable map avilable from Xerox Parc server)—URL: http://www.eng.hawaii.edu/Hawaii/hawaii-all.html

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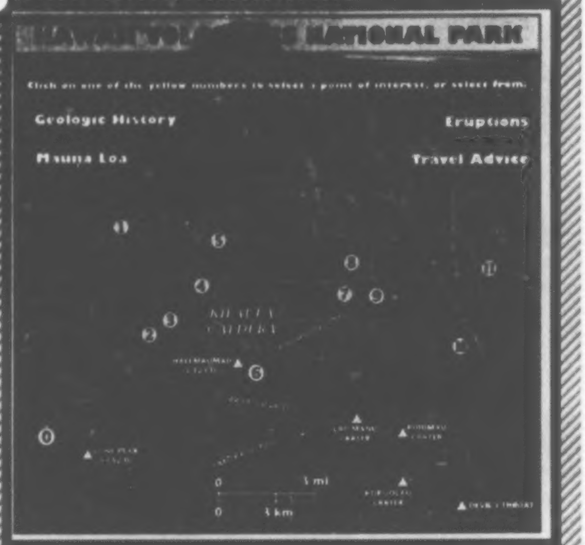
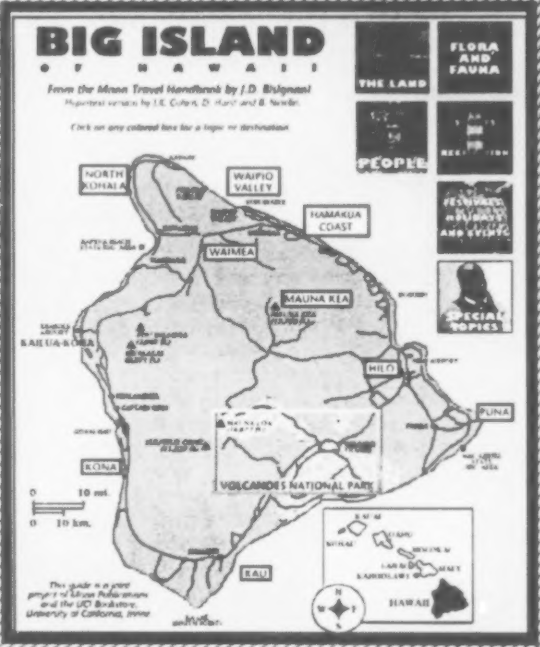


[illegible] NATIONAL PARK

Click on one of the yellow numbers to select a point of interest, or select from:

Geologic History
Eruptions
Mauna Loa
Travel Advice
KILAUEA CALDERA
1
2
3
4
5
6
7
8
9
0 5 mi
0 5 km

2



BIG ISLAND OF HAWAII

From the Moon Travel Handbook by J.D. Bisignani

Hypertext version by J.K. Cohen, D. Hurst and B. Newlin.

Click on any coloured box for a topic or destination

This guide is a joint project of Moon Publications and the UCI Bookstore, University of California, Irvine

THE LAND
FLORA AND FAUNA
PEOPLE
RECREATION
FESTIVALS, HOLIDAYS AND EVENTS
SPECIAL TOPICS
NORTH KOHALA
WAIPIO VALLEY
HAMAKUA COAST
WAIMEA
MAUNA KEA
KAILUA-KONA
HILO
PUNA
KONA
VOLCANOES NATIONAL PARK
KAU
0 10 mi.
0 10 km.
HAWAII
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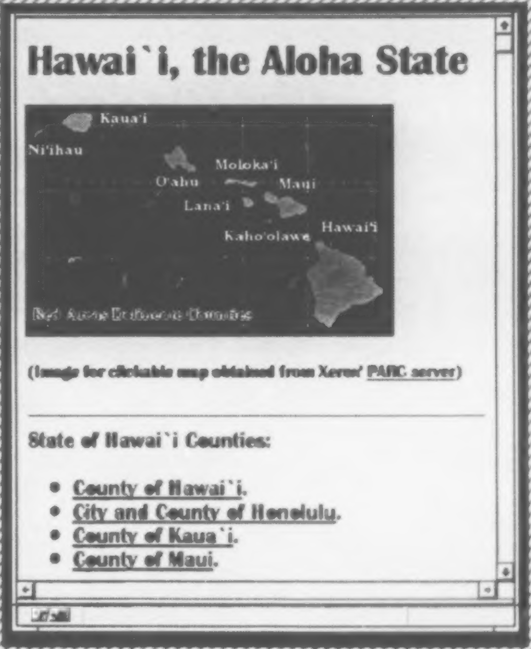
S

3



Hawai`i, the Aloha State

Kaua'i
Ni'ihau
Moloka'i
O'ahu
Maui
Lana'i
Kaho'olawe
Hawai'i

(Image for clickable map obtained from Xerox PARC server)

State of Hawai`i Counties:

- County of Hawai`i.
- City and County of Honolulu.
- County of Kaua`i.
- County of Maui.

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Pick of the Month: New WWW Sites

European School Project (ESP) web site can be found at URL: **http://www.educ.uva.nl/ESP/Menu.html**

Campus EarthNet at URL: **http://netspace.students.brown.edu/environ/earthnet**

Earth And Environmental Sciences WWW Server of the Earth and Environmental Sciences Center (EESC) at the Pacific Northwest Laboratory (PNL) is found at URL : **http://terrassa.pnl.gov:2080/** A hydrology resource list is located at:**http://terrassa.pnl.gov:2080/EESC/resourcelist/hydrology.html**

Germany's University of Cologne's **International Shakespeare Globe Centre** INFORMATION PAGES are available for those interested in the progress of the Globe Theatre reconstruction in London Point to URL: **http://www.rrz.uni-koeln.de/phil-fak/englisch/SHAKESPEARE/**

Oceania WWW Site contains files related to the new country in development, Oceania. You can access the Constitution and Laws, plus information on related books such as The Atlantis Papers and The Millennial Project. THE URL is: **http://unicycle.cs.tulane.edu/oceania**

The Franklin Institute Virtual Science Museum of The Franklin Institute, Philadelphia, Pennsylvania, contains resources for science education as well as general information about the museum and its programs. Point to URL: **http://sln.fi.edu**

The Grand Canyon National Park home page is located at URL: **http://www.kbt.com/gc/gc_home**

The Educational Space Simulations Server is located at URL: **http://chico.rice.edu/armadillo/Owlink/Lessons/Simulation/chris.html**

High school student, Folashade' Alao's short **survey of Internet users.** **Point to URL:http://www.gatech.edu/pitkow/misc/sciproj.html**

Ski Web - a skier's resource - is now available at url: **http://www.sierra.net/SkiWeb.**

OTIS is a gallery, an exhibition space, a database, a browseable sketchbook of the world's artists, artists of all disciplines and cultures. Point to URL: **http://sunsite.unc.edu/otis/otis.html** or alternate: **http://aql.gatech.edu/otis/otis.html**

The Commonwealth of Learning's (COL) can be found at URL is: **http://www.col.org**

Sea World information can be found at URL: **http://www.bev.net/education/SeaWorld/homepage.html**

Physics Around the World. A collection of physics resources can be found at URL: **http://www.physics.mcgill.ca/deptdocs/physics_services.html**

Fractal Music WWW server provides links to fractal music research with music examples. he pages are free for all to publish their works. The URL is: **http://www-ks.rus.uni-stuttgart.de/people/schulz/fmusic/**

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NETTECH NOTES

New WinWEB Release

The Enterprise Integration Network (EINetT) has released a new version of its popular winWeb tool, a Windows-based World Wide Web browser. With this new release- **Version 1.0 ALPHA2.1** - the winWeb client provides proxy support, stand-alone PC support, plus support for a new sound player.

The new feature supporting CERN-style proxy servers provides access to the Web for users who are on closed subnets and can only reach the Internet through a firewall machine. (Firewalls provide network security, allowing users on a proprietary network to access information on the Internet, but preventing unauthorized access from the Internet onto the proprietary network.) winWeb's proxy support feature is easy to configure through a simple Proxy Server Configuration dialog box and provides seamless external access to HTTP, Gopher, and FTP.

The stand-alone PC support feature allows winWeb to run on non-networked Windows PCs without additional configuration or files, making it easier for the individual user to access information on the World Wide Web. The new winWeb also incorporates the wplany (Windows-play-any-file) sound player, developed by Bill Neisius, Hughes Aircraft Company (El Segundo, CA), which detects and plays any sound file through a Windows 3.1 WaveOut, or audio, device.

One of the innovative features that has generated positive comments from users is the full print and print preview capability (winWeb was the first browser to offer this feature). Another helpful feature is the "thermometer" status bar that indicates file transfer progress.

winWeb is available via anonymous FTP from
machine: ftp.einet.net
file: /einet/pc/winweb/winweb.zip.

It is also availble to World Wide Web users from the following URL: ftp://ftp.einet.net/einet/pc/winweb/winweb.zip

winWeb and its Macintosh counterpart, MacWeb (which recently received a "Cool Tool" award from Apple Computers, Inc.), support the display of text, graphics, sound, and video and can be used to view information from a number of Internet sources. MacWeb is available via anonymous FTP from: machine: ftp.einet.net file: /einet/mac/macweb/macweb.latest.sea.hqx.

On the Web, MacWeb can be found at URL: ftp://ftp.einet.net/einet/mac/macweb/macweb.latest.sea.hqx.

For more information about winWeb, MacWeb, or other EINet services, email: info@einet.net or call 1-800-844-4638. Or, on the Internet, go to EINet Galaxy (URL http://galaxy.einet.net/galaxy.html).

New Netscape Release

On December 15, 1994, Netscape Communications Corporation announced the availability of the 1.0 versions of its Netscape Navigator(TM) .

The single-user price of MCC's Commercial Netscape Navigator will be $39. The pricing will include a 90-day warranty, 90-day online or phone support, and diskette or CD.

Netscape Navigator 1.0 is also available for free downloading on the Internet for academic and non-profit use as well as for free evaluation purposes. This can be obtained via anonymous FTP from
ftp.mcom.com/netscape/ or or
ftp2.mcom.com /netscape/
under the directories /Mac or /Unix or /Windows

Academic and non-profit use means that students, faculty, and staff of educational institutions andf employees of non-profit organizations have unlimited free use of the software. Educational institutions and non-profit organizations can also obtain a license free of chagre to redistribute Netscape Navigator to these individuals.

To order Netscape Products, you can call +1-800-NET-SITE (1-800-638-7483). International customers call +1-415-428-4330 or send email to sales@mcom.com.

For those of you with web access, you can navigate to URL:http://home.mcom.com/MCOM/ordering_docs/index.html and complete the form.

NEW LISTSERV ON ATM AND WWW

ATMWWW-L is an open and unmoderated discussion of the impact of Asynchronous Transfer Mode (ATM) Technology and networking on the World-Wide-Web.

To subscribe to ATMWWW-L, send e-mail to:

LISTSERV@CMUVM.CSV.CMICH.EDU

in the body of the e-mail:

SUBSCRIBE ATMWWW-L you full name

To send actual messages to the ATMWWW-L discussion list, e-mail to:

ATMWWW-L@CMUVM.CSV.CMICH.EDU

Owner: Daniel Ferrer daniel.ferrer@cmich.edu
or 34nis5b@cmuvm on BITNET
Head Library Systems, Central Michigan University
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THE DIGITAL BOOKSTORE

Book In Progress— Tales From the Electronic Frontier

WANTED—Contributing authors: teachers who will describe how they use the Internet in K-12 math or science. Project participants will be published in "Tales from the Electronic Frontier" and will receive a $1,000 honorarium. Please note that teachers interested in participating must submit an application by midnight, February 1, 1995.

THE PROJECT — Teachers are asking about the Internet. What is it? How can it support teaching and learning? Helping educators answer these questions is what "Tales from the Electronic Frontier" is all about.

"Tales" will be based on the real life experiences of teachers and students using the Internet in K-12 math and science. More than a collection of stories, "Tales" will weave together these experiences and the information schools need to get started on the internet.

The result? An inspirational resource developed especially for teachers by the people who know best: Internet-savvy teachers already pioneering the Net.

FOR MORE INFORMATION — Send email to: tales-info@fwl.edu

Leave the subject header empty and put the following words in the body, "get info"

If you prefer to use World Wide Web, point your Web client to URL: http://www.fwl.org/fwerc/tales/tales.html .

SPONSORS

"Tales from the Electronic Frontier" is a project of the Far West Eisenhower Regional Consortium for Science and Mathematics Education and the Distance Learning Resource Network at Far West Laboratory.

Far West Laboratory for Educational Research and Development
730 Harrison Street
San Francisco, CA 94107-1242
tales@fwl.edu

The Canadian Internet Handbook, 1995 Edition Now Available

The 1995 Edition of the highly popular book, **The Canadian Internet Handbook**, is now available.

This book is a good resource for anyone with an interest in Internet developments and resources in Canada.

There are:

- Clear, concise summaries of the Internet in Canada, including summaries of how Canadian organizations use the Internet, an overview of registering on the Internet in Canada, the components of the Canadian Internet, and overview of key Internet applications.
- the Directory of Canadian Internet Service Providers, the most extensive and comprehensive list ever produced of organizations that provide Internet services in Canada.
- directories of Canadian Internet resources, including the most comprehensive listings ever assembled of Gopher and World Wide Web servers in Canada, and the most complete list ever produced of public and academic library catalogues in Canada that are connected to the Internet.
- A new Canadian Internet Timeline, which charts the history of the development of the Internet in Canada.

The book was written by Jim Carroll, C.A. and Rick Broadhead, and with a forward by the Honorable Premier Frank McKenna of New Brunswick.

To obtain more information, send a message to info@handbook.com. To reach both authors, send an e-mail message to handbook@uunet.ca. Or visit URL:http://www.csi.nb.ca/handbook/handbook.html.

The Dilemma of the Internet Traveller
by Kathy Rutkowski

The first thing most travellers do when they are planning a trip abroad is to head to the bookstore or library to find a book about their destination. At some point or another, most of us who have travelled have glanced through a Fodor's, Frommer's, or Michelin Guide to somewhere. Many of us have pulled down a book from the shelf and headed off to our destinations armed with our trusted guide only to find out that either the places have changed or the travel researchers were not thorough in their studies. Finally, many of us to our own delight have discovered that we found places that the travel experts apparently hadn't found.

Many of you think of the Internet as a piece of technology, and indeed most bookstores consider the subject thus and place Internet books in the computer section. In fact, most of the more recent books about the Internet should probably be shelved in the travel section because in subject and style they describe a place and where and how to visit that place called "Cyberspace" or " the Internet. " If indeed these books were so catalogued, I believe that many readers and would-be buyers of Internet publications might be better satisfied.

I frequent bookstores and have noted the proliferation of books and magazines on the Internet. It is staggering, and it is apparent that the land called the Internet is a "hot spot." On the one hand, I personally welcome all the attention that the Internet and educational networking more specifically is receiving. I believe that we need to increase the general public awareness of the Internet and to dispel myths and promote a genuine understanding of how the technology can play an important role in changing social institutions such as schools and businesses. However, it is truly mind-boggling how many bad clones are appearing and worst yet how much of the new material is out-of-date and irrelevant.

I truly pity new entrants to cyberspace who are looking for "the" publication to help them understand this place. One would think that more might mean better choice and better opportunity to satisfy individual needs, but more in this world seems to translate into more confusion, higher price tags, and lots of misinformation.

I do not proclaim to be the living authority on the Internet but I am an avid and veteran cyberspatial traveller, and I will tell you frankly that in most instances you can toss the books to the wind. Cyberspace is a fast changing landscape, and even as a publisher of a monthly newsletter, I find myself facing the dilemma of URLS that have changed even as the current newsletter is being printed. If all of you had unlimited time, I would say just grab your mouse and take a ride because that is the way the Internet is meant to be travelled. However, I appreciate that most people have other things to do and are looking to the Internet for specific uses and not for a cyberspatial adventure.

There is clearly a need for books that are more focused on not "how to navigate" but "why" and "for what reason," and this is especially true in education where parents and schoolboards need compelling reasons to allocate more money to technology. I know that there are at least two notable writers now writing books on the Internet in education who will focus on the why and for what reason and I welcome those books. The vast majority of books, however, are of the where to go and how to get there vintage.

There are some books of the "what is" and "how to" nature that are time-tested, still relevant, and worth their price tags. My favorite books on the Internet remain Tracy LaQuey Parker's ***The Internet Companion*** and Brendon Kehoe's ***Zen and the Art of the Internet*** which ironically cost almost nothing compared to some of the new entrants and yet are still excellent introductions. There are some new books that stand out from the crowd because they have tried to take a unique look at the Internet and offer more directed and accurate guidelines. In this category, I would include Howard Rheingold's ***The Virtual Community***, Carl Malamud's ***Exploring The Internet—A Technical Travelogue,*** and Michael Fraase's ***Tour Guides for the PC, Mac, and Windows .*** I would also recommend Paul Gilster's ***The Internet Navigator*** and ***Navigating The Internet*** by Richard Smith and Mark Gibbs as two well-written and well-researched comprehensive guides.

In the area of education, there are three books that I would recommend highly, ***Education Resources on the Internet: A Book by a teacher for teachers*** by Ron Place, ***Building the Future, K12 Network Technology Planning Guide*** by the California Department of Education, and ***Way of the Ferret—Finding Resources on the Internet*** by Judi Harris.

I urge all of you cyberspatial travellers—first time and repeaters alike—to keep good journals and to generously share your sage advice and valuable experiences with your colleagues and friends on the net.

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A Personal Bibliography

The Internet Companion by Tracy LaQuey Parker with Jeanne C. Rider Addison-Wesley Publishing, 1993.

Zen And The Art of The Internet by Brendon P. Kehoe. PTR Prentice-Hall, 1993.

The Virtual Community by Howard Rheingold. Addison-Wesley, 1993.

Exploring the Internet by Carl Malamud. PTR Prentice Hall, 1992.

(See **BIBLIOGRAPHY** *on page 25)*

The Digital Calendar

February

7-11 February **Texas Computer Education Association (TCEA) 15th Annual State Conference,** Austin Convention Center, Austin, TX; Contact: Robert Knight, Executive Secretary, TCEA;tel: +1 800 282-8232; fax +1 806 799-0906; e-mail: knight@tenet.edu.

28-3/3 February ICTE Orlando '95, **"Leadership for Creating Educational Change: Integrating the Power of Technology"**; Orlando, FL; Tom Sechrest, 12th International Conference on Technology and Education, The University of Texas at Austin, College of Education, EDB 518, Austin, TX 78712 USA; tel: + 1 512/471-4080; fax +1 512/471-8786; E-mail:sechrest@mail.utexas.edu.

March 1995

22-25 March **SITE'95 6th International Conferene** in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: <AACE@virginia.edu>

June 1995

17-19 June **Emerging Technologies—Lifelong Learning, NECC'95.** Baltimore, Maryland. For information contact: NECC'95 , ISTE, 1787 Agate Street, Eugene, OR 97403-1923. Tel: +1 503-346-3537, fax +1 503-346-3509e-mail : PDKATZ@oregon.uoregon.edu

28-30 June. **INET'95 - Internet Society's 1995 International Networking Conference** in Honolulu, Hawaii. INET'95, the 5th Annual Conference of the Internet Society focusing on worldwide issues of Internet networking will be held 28-30 June 1995 in Honolulu, Hawaii.

DESTINATIONS SOUTH—A SUMMER WORKSHOP FOR EDUCATORS IN NEW MEXICO

THE LATIN AMERICA DATA BASE (LADB): which is part of the Latin American Institute at the University of New Mexico is sponsoring several summer workshops for educators.
Highlights of the workshop are:

- learning to navigate the information superhighway (telecomputing exchanges/Internet research)
- discovering Albuquerque resources for teaching about the Americas (libraries, museums, professors)
- exposure to innovative approaches to curriculum(hands-on activities, TV and radio programs, Internet projects)
- introduction to Latin American affairs (up-dates by journalists and discussions with professors)
- creating lesson plans that introduce students to Latin American cultures, traditions, and political and economic issues

"The Resources for Teaching about the Americas workshops" will be an an exciting opportunity for secondary teachers to create global classrooms. By the end of the workshop, each teacher will produce one or more lesson plans dealing with Latin America. In order to foster collaborative work and establish possible electronic school partnerships, teachers will work together to research and write the lesson plans. During the school year, workshop participants will maintain contact with one another and be able to share teaching strategies by using a computer network. After an initial testing period, the lessons will be modified as needed, edited and translated into Spanish; and then, disseminated over the Internet to
teachers worldwide.

WHEN: Space for 16 participants in each workshop (all workshops are the same) Workshop 1: May 30-June 14 * Workshop 2: June 15-30 * Workshop : July 24 - August 9 ** Time: approximately 8-5, maybe a few evening events, one working Saturday **WHERE:** University of New Mexico, Albuquerque, NM COST: Free * Each participant will receive an honorarium of $700. * The cost of food, lodging and transportation is the responsibility of each participant. * LADB has available a limited travel supplement to those in need. * For out-of-town participants, campus housing will be arranged by LADB. * It may be possible to receive University credit for participation. **HOW TO APPLY:** Fill out the form (below) and return to LADB by January 10. An application packet will be mailed to all who respond. Applications are due by February 10. Teachers will be notified of their acceptance to the workshop by March 10. Return to LADB by e-mail (retanet@ladb.unm.edu) or snail mail to: Lisa Falk Retanet Program Coordinator - Latin America Data
Base - Latin American Institute - University of New Mexico - 801 Yale, NE Albuquerque, NM 87131-1016 - tel: +1 505-277-8541 - fax:+1 505-277-5989

ACTEIN (continued from page 3)

- to establish leadership in the role of introduction of Internet access to the Australian community at large.
- to encourage collaboration between industry, government, educational institutions, researchers, teachers and students within the region in the development of educational tools and services.

ACTEIN Training and Technical Support

The ACTEIN Program recognize that successful introduction of the Internet into the K-12 environment required the provision of both training and technical support. The success of the ACTEIN Program can at least in part be attributed to the employment of Internet specialists with teaching experience in a startup role for the schools. The teachers simply do not have the time nor the need to become computing literate if they have to rely on jargon filled manuals for instruction. The role of the specialist here is to construct a self-sustaining core of expertise within the school community.

An essential element in the provision of training is to present the use of computer assisted communications as an integral part of the curriculum and not as an additional subject of study.

Three part-time staff were employed to assist the teachers in navigating the Internet and to establish a web of contacts as well as providing instruction in both the use of computers and the use of communications software. What has now been established at all ACTEIN schools, is a small group of teachers who are competent users of computer communications tools and who can now go on to educate their colleagues, fulfilling the objective of creating a self-sustaining core of knowledge and motivation.

It is noted that the most effective startup methodology is a short, but intensive period of activity, concentrating on individual instruction rather than more general group sessions. The individual sessions were designed to provide a basic level of computer skills and instil both confidence and motivation to explore the Internet resources further.

Hardware

At the Schools Site

Schools were asked to provide the equipment at the school site. The schools use either a Macintosh computer (system 7) or an IBM compatible computer (386 or 486). Many schools were able to take advantage of existing computers. It was, however, recommended that schools purchase a high speed (14.4K baud) modem.

ACTEIN Equipment

The ACTEIN service computer is a Sun SparcStation SLC with 16 Megabytes memory and 1.2 Gigabytes disk space.

ACTEIN schools dial into a rotary rack of 8 modems and a terminal server which supports interactive and network access.

Software

The most important consideration in selecting software for this project was user friendliness and reliability. The program aimed to provide the tools necessary to allow teachers, who have had only very limited exposure to computers in the past, a user friendly interface to the Internet. It was recognize that the teachers and students would only take up this technology if the computer tools were readily useable. The Internet access software available freely over the Internet was found to be more than adequate for this purpose.

Software at the School Sites

MacTCP and Merit's **MacPPP** are used to support the Internet connection for Macintosh. MacTCP is licensed software, used to provide Internet protocol support on the Macintosh system. MacPPP is freely available, and allows the Macintosh to make a network TCP link over a dial-up modem connection. All other network software modules noted here require MacTCP to support their communications requirements. MacPPP has adequate scripting facilities to allow the connection via the modem to be established with a single mouse click, and can also operate in a fully automatic mode where the dial-up connection is established whenever an application needs to access the Internet.

Trumpet Winsock is required to support the Internet connection for the IBM compatible systems and is a shareware package developed in Australia. Trumpet Winsock contains a telnet application program.

Eudora is an e-mail package with a very easy to use interface and is available for both the Macintosh and IBM compatible platforms. Eudora has proved to be extremely successful. Teachers have become competent users

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quickly and with minimal instruction. Eudora operates in an on-line / off-line mode. Messages can be composed using any of the school's computers, and a batch of such messages can be sent outward on the Internet in a single dial-up session.

Turbo Gopher for Macintosh and **Hgopher** for IBM are gopher user agents with a user friendly graphical interface. The gopher world is one of information sources, organised using a web of references which span the network. Users can retrieve information (text, pictures, sounds, etc) by following through a sequence of menu choices, or can pose specific information queries to a gopher query server (or in gopher language a veronica). The gopher world encompasses many thousands of Megabytes of information, and the user agent successfully manages to provide a single, consistent and simple interface to this wealth of information.

Mosaic (for Macintosh and IBM) has been developed by the US National Centre for Supercomputer Applications at the University of Illinios. The tool is a window to a number of network information models, including the gopher model and the World Wide Web hypertext information model. The information is accessed via a consistent graphical interface where information and references are embedded within text. Retrieval of information is achieved by clicking on bolded words within documents. Mosaic is very user friendly, but achieves its functionality at the expense of large amounts of data transfer, so its usefulness is severely restricted by the speed of the connection into the Internet.

Netscape (for Macintosh and IBM) is the most recent software development to address the problem of information retrieval from the vast array of Internet resources and is poised to replaced Mosaic as the favored web browser. Netscape achieves significantly improved download speed making it a usable tool at the lower speeds afforded by modem access.

Fetch for Macintosh and **WS-FTP** for IBM were found to be reliable and user-friendly ftp clients.

ACTEIN Computer Software

The ACTEIN service computer is a Unix platform with the following applications software; gopher, www server, sendmail, popper, wais, anonymous ftp, pine and mailing lists.

Projects

Primary School Use of the Internet

Students from Kindergarten to year 6 have participated in Internet activities.

A freedom afforded the Primary School is the integration of a theme or project through all areas of the curriculum. The Primary School setting has the advantage of flexibility not only in curriculum but also time.

- ***Where on the Globe is Roger?***

Roger Williams, global adventurer and raconteur, is communicating with students world-wide while driving around the world in his 1982 Dodge truck. He sends e-mail reports using his personal computer and modem about the exotic places he visits and introduces the students that he meets to students from other parts of the world. Students communicate with Roger and each other via e-mail or snail mail. Students are also encouraged to participate in geography and cultural exchanges.

ACTEIN participant schools enjoyed a visit from Roger Williams while he visited Canberra and the ACTEIN Program. Students were able to discuss with Roger his experiences while driving through South America and question him about Bubba (his truck) which has become his home for the past 9 months.

- ***The Geogame***

Classes complete a questionnaire involving geographical information about their location. The coordinator collects responses from all the participating sites, scrambles the information, and returns the data to participants as puzzles for the classes to solve. Students, with help from maps, atlases, and other reference materials, match the description of each location (based on the questionnaire) with the name of the corresponding city. At the conclusion of the project, the coordinator e-mails the correct answers. An ACTEIN school was named among the winning participants.

- ***Koala Information***

A Koala was donated to the Indianapolis Zoo which then found itself with a Koala and little or no information about Koalas in their reference material. The children answered their Internet plea to provide information for the thousands of visitors annually to the Zoo. The children have provided a unique set of resources which the Zoo is using within their Koala exhibit. All the material (with the exception of the Koalas!) has been collected and dispatched using the Internet.

- ***Real-time Communication***

Kidlink is a worldwide grassroots organisation that is co-ordinated from Norway. Kidlink maintains a closed IRC server for 10 to 15 year old students. Students from the ACT have been able to communicate in real time with their peers from around the world.

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♦ *Christmas Cultural Exchange*

Kindergarten, grade 1 and grade 2 students are involved in a project to share Christmas traditions across the globe. Students will share songs, celebrations, recipes, etc in addition to designing a summer wardrobe for Santa and an alternative mode of transport.

♦ *The Monster Project*

This project was completed by kindergarten children. Classes participating in the Monster Project read the book "There's a Nightmare in my Closet". Each class was then given a part of the monster to describe and then asked to create/construct a monster using the collaborative description. Photos of the monster were then distributed. This project was integrated into a unit about the human body and integrated into all curriculum areas.

♦ *The Antarctic*

Opportunities have arisen whereby students have exchanged e-mail with NASA scientists and Australian researchers working in the Antarctic.

♦ *Travel Brochures*

Students have exchanged information about the local Canberra attractions (from the perspective of an 11 year old) for equivalent information from Washington DC

♦ *Collaborative Story Writing*

An interesting cultural exchange arose from collaboratively composing a story with a school from Long Island, New York. Canberra students started the story with a distinctly Australian flavor and the US students provided the conclusion with an American flavour.

♦ *Rainforest Project*

This project has been initiated from Canberra and involves schools in Indonesia, Hawaii, Nebraska and an Oxford IT specialist who will be accompanying a scientific expedition to the rainforest Guyana. Plans are being made to exchange e-mail with the specialist while he is in Guyana.

Secondary School use of the Internet

Curriculum restraints imposed by the secondary curriculum and organization structure have lead to a different approach to Internet use in the secondary schools.

♦ *Mountains Project*

This project was conducted in the form of a questionnaire to the 16 participating schools. While this project began as a specifically geography theme it developed also into a cultural exchange with the exchange of recipes and ongoing friendships have developed.

♦ *Newsday Project*

Students are involved in creating their own Newspaper using not only local information but also information obtained from their peers across the Internet. Schools then send copies of the Newspapers produced via snail mail.

♦ *American Literature Study*

Pre-service teaching students from Ohio-State University take on the part of characters from the American Novel, "The Great Gatsby", and reply to the school students as that character.

♦ *William Shakespeare Project*

Canberra students have shared ideas about Romeo and Juliet with their peers in the USA in addition to writing to "William Shakespeare" himself in a project involving students from the USA, Russia and Australia.

♦ *Japanese Language Study*

Students have communicated with Japanese students to enhance their use of the language and to further their cultural knowledge.

♦ *Dickens*

The benefit from inviting other adults into the classroom has been realised with a group of students discussing Dickens with an adult in LA.

♦ *Alternative Energy Project*

A Canberra class is exchanging information on alternative energy sources with a class in Finland. This exchange goes beyond just scientific information and discusses the political issues that arise from the production of electricity using nuclear energy.

♦ *The International Baccalaureate*

Students in Australia studying the International Baccalaureate have the opportunity to communicate with their peers worldwide.

♦ *Individual Tuition*

It is interesting to note that some schools have begun individual projects for students with special interests. Individual students are exchanging information about Christmas with students from Finland and the UK. One student has extended their interest in Ancient Egypt through information provided via the WWW and a mailing list dedicated to ancient history. The mailing list is providing the opportunity to correspond with other students and academics with a similar interest.

♦ *Information Provision on the Internet*

Students have received tuition in the writing of HTML documents, allowing them to be information providers on the Internet. ACT students have created WWW documents with general information about their schools and have laid the foundations for future students to add to the diverse information resources available on the Internet.

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♦ *The Global Schoolhouse Project*

The Global Schoolhouse Project uses the capabilities of personal computers and the Internet to construct a virtual classroom around the world, with each location linked in via a video and audio patch. The Project is an initiative of the US National Science Foundation. The NSF provides the seed funding to create a framework whereby the communications industry and the community work together for the benefit of school education.

Within this framework of collaboration the children are provided with the necessary tools and training to allow them to do collaborative research and use video conferencing over the global Internet to communicate with each other and National and International leaders.

The Global Schoolhouse Project demonstrates the use of video conferencing on personal computers over the Internet. Cornell's CU-SeeMe video conferencing software allows students to sit down at an Apple Macintosh or MS-DOS computer and work with students in other locations.

Video conferencing over the Internet is a key technology for students to communicate with each other and with educators, policy makers, scientists, and many other resources around the world. The network technology opens up the classroom, allowing students and teachers to take advantage of databases and people previously unavailable to them.

The Global Schoolhouse Project shows how students can talk to each other and policy makers. Many other populations of users are also on the Internet, including scientists, university students, corporate executives, librarians, and a wide range of other groups. Video conferencing over computer networks provides a unique opportunity for policy makers to talk to the general public, forming the basis for an Internet Town Hall.

To use CU-SeeMe software effectively it is necessary to have at least a 64K ISDN connection to the Internet. The Universities have established a facility located at The Australian National University that allows schools to use CU-SeeMe. It is anticipated that 4 video conferences will be held during November. The schools involved in the Global Schoolhouse Project will conduct collaborative research on the topics of Trash, Energy and Weather using the e-mail facility at their school and will then use the University facilities to hold a conference via the Internet.

Professional Development

- ☞ Teachers have accessed the library catalogues of the local universities in the process of upgrading their qualifications.
- ☞ Secondary teachers have the ability to keep up to date in their field of expertise via the special interest group mailing lists and information accessed by the World Wide Web, (WWW).
- ☞ Teachers have discussed issues of pedagogy with their peers world-wide via e- mail and using the CU-SeeMe video conferencing facility at the Australian National University. ACT Teachers participated in a video conference with teachers from the Global Schoolhouse Project that also included scientists, researchers and Internet information providers from the USA and Norway.
- ☞ ACTEIN program teachers have become information providers about the highly successful Reading Recovery Program used in ACT schools. A World Wide Web page providing information about the Reading Recovery Program
- ☞ has been developed in collaboration with ACT teachers.

Conclusions

The Internet expands the K-12 classroom by making many resources from all over the world directly and immediately available to students and teachers alike. It brings information, data, images, and people directly into the classroom, creating an environment richly populated with resources, information and ideas.

In particular, the provision of individual tuition is one not usually afforded by the traditional classroom. The typical student to teacher ratio found in many ACT classrooms does not create an environment whereby individual student needs or interests can be addressed. The Internet allows teachers to seek the support of adults from the world-wide Internet community who can provide to the classroom a wealth of experiences and expertise that would not otherwise be available.

The Internet allows each class to respond to such an environment with their own inputs of thought, creativity and imagination, publishing their own resources, capabilities and ideas back onto the Internet for others to use and enjoy. An environment of creativity and sharing is an essential attribute of the K-12 educational program, and the Internet constructively challenges this environment by allowing this creativity and sharing to take place within a truly global domain.

The approach of providing a high degree of specialist support at an individual level to start off the project appears to be an optimal use of resources. ACTEIN schools are now achieving a level of capability which is now self sustaining, with a core of highly motivated teachers providing a constant stimulus of new ideas to the entire school community.

(See **Conclusions** *on next page)*

(CONCLUSIONS, *continued from page 24)*

The Pilot Schools Program has established ACTEIN as a leader in the provision of computer assisted communications in school education. ACTEIN is now providing leadership Australia wide to universities, governments and commercial enterprises looking to develop similar programs to provide Internet access to schools. Through the program ACTEIN principals have been involved in or made presentations to Questnet, ITEC - Education and the Information Highway, the 4th Catholic Secondary Teacher/Librarians Conference and the National Scholarly Communications Forum - Round Table on Public Access to Networked Information.

ACTEIN has established a global presence through its association with the US-based Global School -house Project. ACTEIN students and teachers have participated in Global Schoolhouse special events including video conferences with students and teachers from the United Kingdom and the United States of America.

The major conclusion that can be drawn from the work to date is that there is a definite and indeed highly essential role the Internet can play in all years of formal education in the K-12 classroom, and that this can be achieved in a highly cost effective and productive manner.

The second conclusion is that a program of widespread introduction of this facility into the country's schools will have to be undertaken with due care and attention paid to the provision of helpful specialist advice during each school's initial steps along this particular path. This is not an environment where traditional top down approaches, such as the application of program money with centrally administered in-service teacher education programs, are going to be effective. Indeed it is reasonable to suggest that such programs will be more damaging than helpful! Perhaps the most effective program is going to be that of a wavefront, where startup resources are concentrated on each school as they pick up the program, and moving onto a new school once a level of self-sufficiency is reached.

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For more information on ACTEIN, contact the author, Michele Huston, at:

A PERSONAL BIBLIOGRAPHY (Continued from page 19)

The Windows Internet Tour Guide by Michael Fraase. Ventana Press, 1994 (Also PC and Mac Guides)

The Internet Navigator by Paul Gilster. John Wiley & Sons, 1993.

Navigating the Internet by Richard Smith and Mark Gibbs. SAMS, 1994

Educational Resources on the Internet: A Book by a teacher for teachers by Ron Place. Internet Express, 1155 Kelly Johnson Blvd. Suite 400, Colorado Springs, CO 80920 USA. + 1 800-592-1240. Copyright 1994.

Build The Future, K12 Network Technology Planning Guide by the California Department of Education, 1994. (Copies are available for $11.75 each plus sales tax for CA residents, from the Bureau of Publications, Sales Unit, California Department of Education, P.O. Box 271, Sacremento, CA 95812-0271 USA)

Way of the Ferret—Finding Educational Resources on the Internet by Judi Harris. ISTE, 1994. (ISTE, 1787 Agate Street, Eugene, OR 97403-1923, USA. Fax: +1 503/346-5890. Tel: +1 800/336-5191

****CHECK OUT** Education Policy Analysis Archives Volume 2, Number 14, November 29, 1994 ISSN 1068-2341 "Worldwide Educational Convergence Through International Organizations: Avenues of Research" by Connie L. McNeely, Department of Sociology at University of California, Santa Barbara, and Yun-Kyung Cha, Department of Education, Hanyang University, Seoul.** The authors examine the role of the transnational organizational apparatus vis-a-vis nation-states in organizing national educational systems in accordance with world level educational ideologies, structures, and practices. They propose some useful frameworks for much-needed future research into this area.

(EPAA is gophered at INFO.ASU.EDU in the sub-directory CAMOUS-WIDE INFORMATION. WWW URL: http://info.asu.edu/asu-cwis/epaa/welcome.html)

BUSINESS: MCI Selects Netscape Navigator and Netsite Commerce

Netscape Communications Corporation (formerly Mosaic Communications Corporation), a premier provider of open software for the Internet, recently announced that MCI Communications Corporation, one of the world's largest telecommunications companies, selected Netscape's client/server software system as the core technology of its new internetMCI service.

MCI will use the Netscape Navigator and Netsite Commerce Server software with integrated security as the turn-key solution for companies and consumers to conduct business on the Internet. As part of its new service, MCI is offering a secure online shopping mall called marketplaceMCI that will include electronic newstands and storefronts. The system incorporates secure credit-card transaction processing without telephone operator intervention and a database managment system integrated by Netscape Communications.

MCI will distribute to its customers Netscape Navigator packaged to provide easy dial-up, point-and-click Internet access and navigation. Netscape Navigator has been especially tuned for high performance over 14.4 kilobit/second modems. The navigator allows consumers to browse electronic storefronts and purchase goods and services securely using any major credit card.

Netscape Communications' Netscape Navigator and Netsite servers are commercially robust, open software products for easily exchanging information and conducting commerce on the Internet. The products bring secure communications, database integration, online searching, financial credit and debit transactions, performance and support to companies and individuals who want to create or access information services on global networks. The products offer easy-to-use interfaces for serving and accessing multimedia information on the net, including formatted text, graphics, audio and video, and are fully compatible with other HTTP and HTML based clients and servers.

The Netscape Navigator and Netsite Commerce Server incorporate Netscape Communications ' implementation of RSA Data Security technology. This technology provides encryption, which creates a secure channel to prevent anyone on the network from monitoring the transaction, and authentication, which verifies the legitimacy of the server. Server certification software is also provided by Netscape Communications. The products are designed for online transactions and electronic data exchange, enabling merchants and service providers to create and run a secure presence on the Internet, managing subscriber relationships, database transactions, credit and debit transactions and document services.

The Netsite Commerce Server 1.0 and Netscape Navigator 1.0 will be available starting December 1994. MCI will begin offering its internetMCI service with the marketplaceMCI electronic mall by the end of the year.

NetTEACH NEWS is a newsletter for K-12 networking educators. It provides a forum for the exchange of information for and by the K-12 community about the digital networks and networking resources, applications to education, significant events, and major international, national, regional, and state programs and policies relevant to K-12 networking. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to many *global living learning villages.*

NetTEACH NEWS is published ten times a year.

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Connecting Learners Around The Globe

NetTeach News

JANUARY 1995 VOLUME TWO, NUMBER EIGHT

Connectivity: One Small Step for Local Schools, One Giant Leap for Global Learners

A noiseless patient spider, I mark'd where on a little promontory it stood isolated, Mark'd how to explore the vacant bast surrounding. It launched forth filament, filament, filament, out of itself. Ever unreeling them, ever tirelessly speeding them.

And you O my soul where you stand. Surrounded, detached, in measureless oceans of space, Ceaselessly musing, venturing, throwing, seeking to connect them. Till the bridge you will need be form'd, till the ductile anchor hold, Till the gossamer thread wo fling catch somewhere, O my soul.

■ **A Noiseless Patient Spider** by Walt Whitman

Connectivity is fast emerging as a defined goal.

■ Across the globe educational leaders and managers are concocting plans to "connect" their schools to the Internet. Many are enlisting the help of networking specialists, technical consultants, and community business and government advisory councils to help them design and finance the local and wide area networks necessary to effectively link schools to the vast global networks. Connectivity in many schools, school districts, states, and provinces is fast emerging as a defined goal rather than some vague futuristic notion.

Connectivity is not a simple choice...

For those who are struggling to "connect" schools as quickly, efficiently and as economically as possible, it is apparent that "connectivity" is not a simple choice. There are complex technical decisions that are further complicated by the dynamic nature of networking technology. Hard economic decisions must also be made to reallocate limited education funds to support networking construction and finance access charges. However, the most critical choices and ironically the least understood and indeed most often overlooked in the connectivity decisions are those that concern the context of educational networking and the structure of learning .

Connectivity is not a goal ...learning is.

It is important to constantly bear in mind that "connectivity" is not a goal in itself, but rather a means to a goal. The first and foremost goal of any learning institution is learning. Any technical or economic decisions that are made must incorporate the underlying pedogogic purpose or there is an increased likelihood of system inefficiency and policy failure.

It is important that innovative teachers, librarians, and media specialists be consulted with, and included in decisions made regarding networking designs and connectivity.

Innovative teachers, librarians, and media specialists in the schools should be consulted with and included in decisions made regarding networking designs and connectivity plans. It is also essential that all levels of educational decisionmakers, including superintendents, principals, and practitioners in the classroom and library share a common vision of the learning and the role technology can play in advancing the fundamental learning program.

(See **Connectivity** *on page 3)*

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A Word from the Editor

THE VOYAGE BEGINS — "Set A Course For Home!"

On Monday, January 16th, I joined the rest of the trekkies including my eight year old son to watch the premier episode of Star Trek: Voyager. In a long tradition, Voyager seeks to use the futuristic setting of expansive frontiers of space to "teach" us something about our own time, the planet earth, and humanity in an intelligent and entertaining manner. Star Trek, Star Trek: Next Generation, and now Star Trek: Voyager offer the "TV" generations our "morality" plays.

Perhaps the English teachers out there will now cringe at the comparison between a tv drama and the rich traditions of classical stage drama but I would vow to say that many an English teacher and student of English watched this premier episode. I would also dare to say that like me, many have conjured up in their imaginations new episodes for this new crew of daring explorers whose outward bound journeys offer powerful opportunities to reveal current and common aspects of the human condition.

Yesterday morning, a Spanish high teacher called me asking me for resources to help her link her students with students in Spanish-speaking countries. Yesterday afternoon, I was relayed an e-mail message from an elementary teacher in Blacksburg, Virginia trying to figure out how to use the Internet with her 7-8 year old students. Last night, I received a message from a colleague in Japan hoping to use the Internet to mobilize children from around the world to help rebuild the schools in Kobe, Japan.

You are now scratching your heard trying to figure out the connection and my point. We are afterall linear thinkers who require logical progression and presentation of fact, events, and argument, or are we? Right now I know intuitively than many of my readers have already connected to my thought and my point. I think that they—you— like Whitman's noiseless patient spider, are reaching out filament by filament and exploring the measureless oceans of space that both divide and unite us, past generations, and future generations. Maybe as a race we have become too dependent on controlled, linear thought to the point we have lost our innate abilities to think, learn, and like the Betazed, Deanne Troi in Star Trek: Next Generation, to feel spatially and spontaneously. The new technologies that now excite us with their possibilities can free us from this form of captivity.

Freedom, however, is the realization of constraint. As we boldly go where no man and woman and child has gone before, we will encounter unforeseen challenges. We can expect no easy choices and even less so easy solutions. We are not only exploring new worlds, developing new survival skills and abilities, creating new vocabularies, building new knowledge bases but also constantly redefining our humanity.

What we do and what we say here will matter and will affect future generations in profound ways. We have unleashed a tremendous technological power that can alter the way we think, read, express ourselves, and if we are not careful even the way we feel and dream. There are now studies underway that suggest learners today can not tolerate long descriptive text or lengthy discourse. In this generation, we have witnessed the emergence of dramatic plays structured around multiple scenes rather than long acts, customized digital news flashes replacing the daily newspaper, and the popularity of tv morality plays in the form of weekly and even bi-daily shows.

This does not necessarily mean that we have lost our humanity but it does mean that we, like the Star Trek crews, must be vigilent and constantly interpreting the "Prime Directive." As we introduce these technologies to future generations and as we employ them in our own lives, the bottom line questions must be moral ones. Our challenge as generational teachers is to help learners go boldly to new worlds of learning armed with a clear sense of home and a clear sense of moral obligation to participate in the dignified common struggle of mankind as it seeks to define itself in the face of death and extinction to some cosmic Intelligence.

Editor: Kathy Rutkowski

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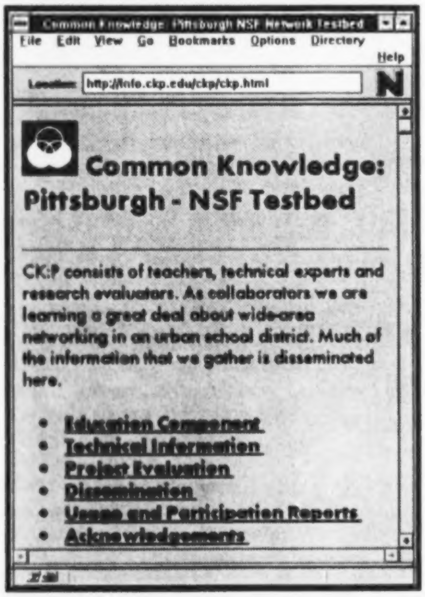
CONNECTIVITY (Continued from page 1)

Learn from the Work of Others

There are many outstanding projects that can offer schools and school districts now contemplating networking some useful guidance. Common Knowledge:Pittsburgh started in September 1989 with a simple phone call from Bob Carlitz, a theoretical physicist and creator of KIDSPHERE, to the Pittsburgh Public School District office. It has grown into one of the most successful grassroots efforts to bring together new partners and to promote the people "connectivity' that can effectively use the technical connectivity to transform learning. In Clark County, Nevada an Educator with a vision, named Judi K. Steele, created the Clark County Public Education Foundation "to mobilize the community to support public school projects and initiatives to improve student performance and prepare students for a new century." Only now is Clark County launching a major networking scheme but its chances of success are greatly increased because of Judi and a vision of what teachers and learners can accomplish. There are so many other people and places to learn from that there simply is no need to struggle in isolation and in many instances reinvent the wheel.

The National Science Foundation has played a fundamental role in nurturing the development of school networking and a quick glance through a list of the most recent recipients of NSF NIE grants is like a tour of the best and the brightest. However, the truth is the NSF has only supported a small percentage of the outstanding efforts of pioneer educators and community leaders across this nation to tap the technological wealth now available for the benefit of learners.


Common Knowledge: Pittsburgh NSF Network Testbed
File
Edit
View
Go
Bookmarks
Options
Directory
Help
Location:
http://info.ckp.edu/ckp/ckp.html
N

Common Knowledge: Pittsburgh - NSF Testbed

CK:P consists of teachers, technical experts and research evaluators. As collaborators we are learning a great deal about wide-area networking in an urban school district. Much of the information that we gather is disseminated here.

- Education Component
- Technical Information
- Project Evaluation
- Dissemination
- Usage and Participation Reports
- Acknowledgements

Use The Power of the Technology

Most pioneer networking educators would advise any colleagues now embarking on this journey to use the power of the technology to research connectivity options and understand the structural problems that are apt to retard the successful "infusion" of the technology into the schools and classrooms. Before launching a massive networking program, educational administrators should work with key people in their system and in their communities who are internetworking and use the technology to gather the kind of information necessary to make the best possible choice for their unique localities. Before one goes out to buy a car, it is advisable to know how to drive, or at least go with someone who does.

Connectivity Is A System Matter

Perhaps most of important of all it is essential that educational decisionmakers understand that decisions made about technical connectivity will fundamentally impact on the entire system. It is clear that internetworking technologies transform organizations and change the structure of management as well as the basic nature of the business.

In schools, internetworking supports a more decentralized but not necessarily deconcentrated management structure. New lines of communication are open that can be used by an effective manager to better promote an organizational vision.

In terms of learning, internetworking ultimately promotes a research atmosphere. Teachers, educational managers, and students use this technology to "learn" in the sense of constantly seeking information that allows them to make independent decisions or come to some original conclusions.

Connectivity Is Global Issue

Across the globe, educators are talking to one another, sharing their experiences, sharing their visions, and sharing their fundamental beliefs about what role society should play in nurturing new generations of learners.

Before the advent of networking technology, communications between educators was very limited and there was little continuity or common vision in the many public education efforts across the globe, across countries, and across communities. Connectivity is changing that, and the end of isolation is resulting in the emergence of global learning communities that will share and optimize the utlization of scarce resources .

This connectivity of technology, people, visions, and communities can lead to the emergence of a much stronger worldwide education system, and can also better bolster local initiatives by schools to redefine themselves by providing localities with new sources of knowledge and support.

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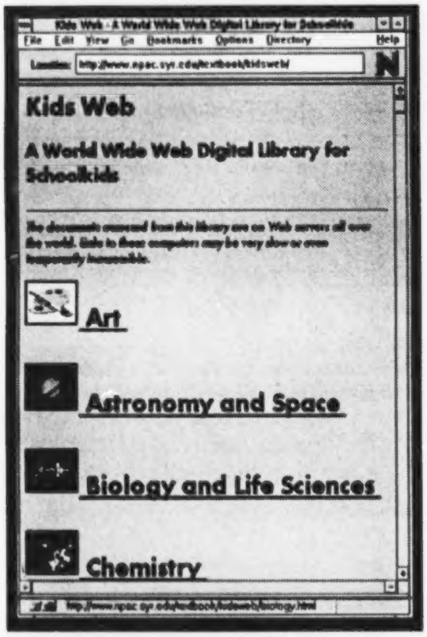
NetTeach News

Kid's Web – Taking A Kid Size

Kid's Web — a prototype virtual library for K12 learners — offers K-12 learners a new and exciting way to explore the World Wide Web. Researchers are sweeping the World Wide Web looking for places suitable for K12 learners, classifying them into various main topic areas, and then linking not only to those pages but in some instances to suitable sections of those pages.

Chaos On The Web

The World Wide Web (WWW) has captivated information seekers from around the globe. The amount of information stored on the World Wide Web is staggering, and even inveterate researchers and information specialists are often overwhelmed and anxiety-ridden by the sheer volume.


Kids Web - A World Wide Web Digital Library for Schoolkids
File
Edit
View
Go
Bookmarks
Options
Directory
Help
Location: http://www.npac.syr.edu/textbook/kidsweb/
Kids Web
A World Wide Web Digital Library for Schoolkids
Art
Astronomy and Space
Biology and Life Sciences
Chemistry

http://www.atmos.uiuc.edu/

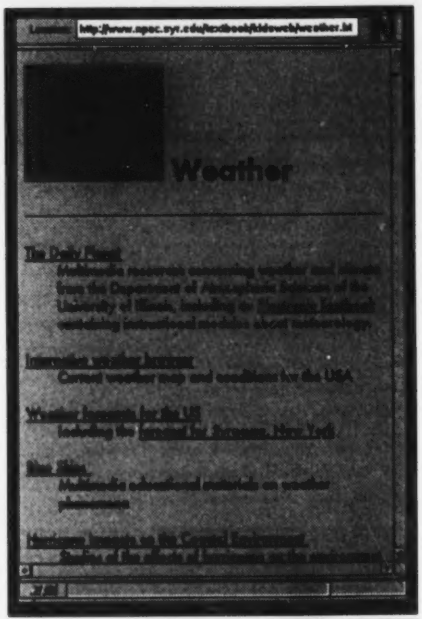
Search engines such as The JumpStation, WWW Worm and the Web Crawler are aiding in the search for specific information sites but at this stage in the evolution of the technology the best searches are typically those made by people who are experienced in framing questions and evaluating all sources of information.

Many teachers and parents are wondering how to help their students and children tap the potential of the Internet and more specifically the World Wide Web. Children do enjoy exploring in the hypertext, hypermedia environment but random searches on the net can often result in some frustrated young learners and tired mentors.

Virtual libraries have sprung up all around the Web to help learners and information seekers to narrow their search. There are virtual libraries on just about any topic imaginable—biology, art, martial arts, climbing, music, astrophysics, and even Celtic music. These digital indices provide fast links to relevant WWW sites, and help to accelerate searches.
A number of excellent virtual libraries now exist for the K12 environment, such as ARMADILLO (http://chico.rice.edu/aradillo/Rice/K12resources.html), EINET (http://www.einet.net/GJ/education.html) and CEARCH —Cisco's Educational Archive (http://sunsite.unc.edu/cisco/edu-arch.html)

Kid's Web — Managing the Chaos

Kid's Web is bringing order to the chaos but in a way that encourages independent thought and grassroot creativity. Unlike


Location: http://www.npac.syr.edu/textbook/kidsweb/weather.ht
Weather

http://www.npac.syr.edu/textbook/kidsweb/

some other prototypes, it does not seek to limit circulation or become a deadend authoritative web site. It's sweeping approach and careful attention to cataloguing should encourage more 'web'sters to construct quality information pages that target K-12 learners. In Kid's Web young websurfers are provided with a subset of the Web that is very simple to navigate through, and contains information targeted at the K-12 level.

Each subject section contains a list of links to information that is understandable and interesting to schoolkids. There are currently nineteen main subject areas including, art, astronomy and space, biology and life sciences, chemistry, computers, drama, environmental science, geography, geology and earth sciences, government, history, literature, mathematics, music, physics, reference materials, science and technology, sports, and weather and meteorology.

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Byte off The World Wide Web

There are also:

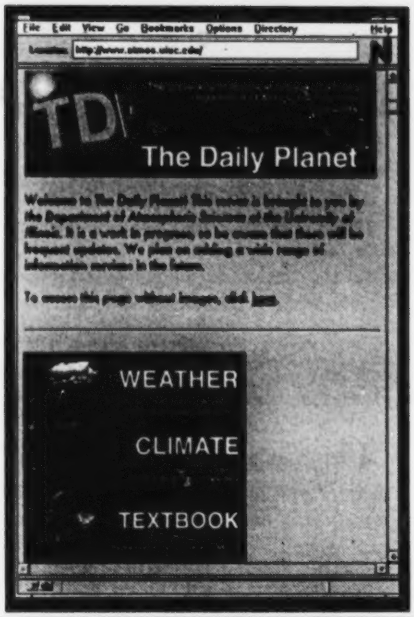
- links to other collections of web sites for kids such as: Kids on Campus at Cornell University, Kids Internet Delight (KID) by John Makulowich, and The Children's Web Page from the Vicolo Observatory in Italy.
- links to external lists of material on each subject which more advanced students can browse for further information.
- links to other digital libraries and search engines such as: world wide web virtual library, ElNet Galaxy, The Whole Internet Catalog, Yahoo—A Guide to WWW, Planet Earth Home Page, and WWW Search Engines.

Each subject page has links to other places. For example, The Weather Page (shown at left) has links to The Daily Planet (shown at right), the Interactive Weather Browser (shown below), Blues Skies, and other places of interests to students and their teachers.

Kid's Web uses caching technology to store the documents on a centralized server at the Northeast Parallel Architectures Center (NPAC). This supports a much more rapid access of information by the students than is normally the case when downloading information off the web.

The Living Textbook Project

Kid's Web grew out of a computer multimedia class based on the World Wide Web and Mosaic which was taught to 8th graders as part of the 1994 Young Scholars Program at Syracuse University. It is being developed as part of The Living Textbook project.

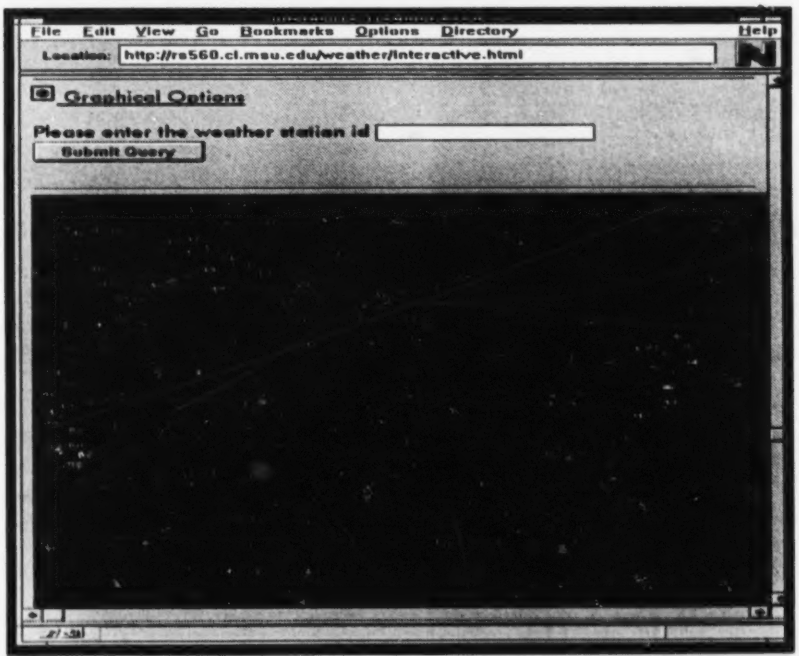


http://www.atmos.uiuc.edu/

The Living Textbook Project seeks to apply advanced high performance computing and communications to K-12 education, and. By the end of 1994, a number of schools in New York state will be connected to the Northeast Parallel Architectures Center (NPAC) at Syracuse University by NYNet, a fast optical fiber network using state-of-the-art ATM networking technology.

To find out more about the project address questions to : kidsweb@npac.syr.edu

Paul Coddington
Northeast Parallel Architectures Center (NPAC)
Syracuse University, Syracuse, NY 13244-4100
Tel: (315) 443-4883;
Fax: (315) 443-1973



Location: http://rs560.cl.msu.edu/weather/interactive.html

Please enter the weather station id

http://rs560.cl.msu.edu/weather/interactive.html

The Princeton Review Sets Up Listservs Regarding Admissions

The Princeton Review has established a number of eductional mailing lists for high school and college advisors, counselors (middle and high school), and students.

The mission of these lists is to facilitate conversation about high school and college admissions, admissions testing issues, financial aid, curriculum, and assessment. The list is open to both public and independent school counselors, as well as college admissions and financial aid officers, pre-medical and law advisors and students.

The list are:

sat@bloggs.review.com
lsat@bloggs.review.com
gre@bloggs.review.com
gmat@bloggs.review.com
mcat@bloggs.review.com
counselors@bloggs.review.com-For high school admissions counselors
law_advisor@bloggs.review.com-For pre-law advisors
med_advisor@bloggs.review.com-For pre-med advisors.

To subscribe, send a message to: listname-request@bloggs.review.com and write "subscribe" in the subject line.

[redacted]

H-High-S *is intended for educators interested in discussion of curriculum, instructional strategies, and educational resources involved in teaching history, social studies, and related subjects in American secondary schools. H-High-S is particularly interested in the interdisciplinary curriculum and the use of computers, multimedia, the Internet, and other new technologies.*

To subscribe, send a message to:< LISTSERV@MSU.edu>
In the main body of the message write:
subscribe H-High-S Firstname Surname, Affiliation

H-High-S is co-moderated by Matthew Hermann, San Ramon Valley High School, Danville, CA. (mhermann@ix.netcom.com), Paul Buelow, University of Illinois at Chicago, pab@tigger.uic.edu), and Louis Garaventa, Canisius HS, Buffalo,(garavenl@gort.canisius.edu).

IL-EDU*list is intended to be a forum for discussion on issues related to the use of the Internet in the Israeli school system. The list is open to members of the Internet community who are interested in promoting these issues: Internet connection providers, Internet software developers, teachers, students, academic professionals, Internet experts, telecommunication companies, and anyone with knowledge in this field who is willing to share his/her experiences.*

To subscribe, send a message to: majordomo@pluto.mscc.huji.ac.il
In the body of the message: SUBSCRIBE IL-EDU or SUBSCRIBE IL-EDU your-email-address

The list editor/owner: Danny Golan msgolan@pluto.mscc.huji.ac.il

CORELINK *is a moderated discussion group and distribution list intended for both K-12 and post-secondary educator. Subject matter includes, but is not limited to, the consideration of courses, texts, syllabi, lesson plans, new pedagogies and technologies, trends and initiatives within the education reform movement, and the politics and policies surrounding "core curriculum." CORELINK is tied administratively to the gopher files of the American Association for the Advancement of Core Curriculum.*

To subscribe, send a message to: listproc@mercury.cair.du.edu .
In the main body of the message write:
subscribe corelink FirstName LastName

Owner: craschke@du.edu

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[redacted]

VIRTED *is an open, unmoderated discussion list for teachers, students, and anyone else interested in the uses of VIRTUAL REALITY in education and learning.*

To subscribe, send a message to: LISTSERV@SJUVM on BITNET or LISTSERV@SJUVM.STJOHNS.EDU.

In the main body of the message write:
SUB VIRTED yourfirstname yourlastname

Owners: Valorie J. King <king@access.digex.com>
P.J. Lucas <plucas@vt.edu>
Dr. Robert Zenhausern <drz@sjuvm.stjohns.edu>

TECHNOLOGY-EDU *is an unmoderated discussion list intended for anyone interested in the role of Technology Education.*

TO SUBSCRIBE, send a message to:
listserv@listserv.ncsu.edu

In the first line of the main body of the message write:
sub technology-edu firstname lastname

Listowners:
Steve Petrina (petrina@poe.coe.ncsu.edu)
Dick Peterson (richard@poe.coe.ncsu.edu)
Ken Volk (bevolk@ecuvm.cis.ecu.edu)

CSHCN-L (Children with Special Health Care Needs - List Serve) is a moderated discussion list for individuals with shared interests, both professional and personal, in children with special health care needs. The CSHCN-L provides the opportunity to exchange ideas, identify exemplary programs addressing the needs of the population of children with special health care needs and their families, and initiate a dialogue of the critical issues which need to be identified and articulated to inform the current debates.

TO SUBSCRIBE send a message to: LISTSERV@NERVM.NERDC.UFL.EDU
or to LISTSERV@NERVM.BITNET
On the first line of the main body of the message write:
SUBSCRIBE CSHCN-L your first name your last name

The CSHCN-L moderator is Donna Hope Wegener, M.A.
DonnaHope_Wegener@qm.server.ufl.edu

EDUNET Aims To Bring Together Global Educators and To Discuss Critical Issues

The Education Department of the Iowa State University created EDUNET — a listing for students in education courses, educators, and anyone interested in issues related to education.

The purpose of EDUNET is to facilitate discussion on critical educational issues and topics, and to connect and foster communication and collaboration between educators and future educators. The hope is that EDUNET will help to develop a "virtual" mentorship community for educators.

To join EDUNET, send an e-mail message to: ksunwood@iastate.edu with your e-mail address and ask to have your name added to the EDUNET mail list.

NetTeach News

NEWSMAKERS

Sema Marks is named the Director of Marketing for BBN's Education Technologies Group.

BBN Systems and Technologies, a division of Bolt, Beranek and Newman, Inc. recently announced the appointment of Sema Marks as Director of Marketing for BBN's Educational Technologies Group.

Prior to joining BBN, Dr. Marks was founder and president of Semark Productions, a marketing consulting firm, and held several sales and marketing positions at IBM Corporation. She has a doctorate in computer applications to education from Harvard University and has held academic and administrative positions in higher education including Director of Academic Computing at The City University of New York (CUNY) and the School of Public Policy, Baruch College, CUNY.

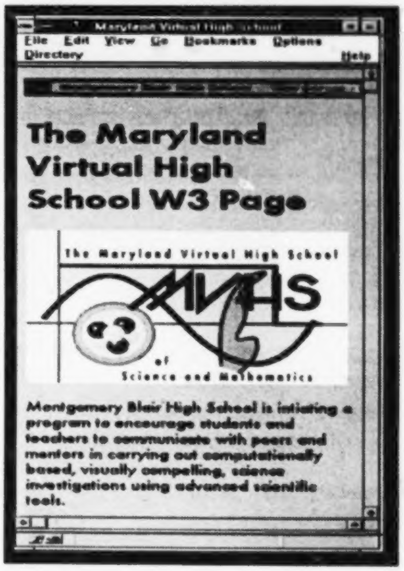
Dr. Marks has written numerous books and articles on education and technology including the landmark work, ***Run, Computer, Run: The Mythology of Educational Innovation,*** with Anthony G. Oettinger, and ***Computer Simulation for High School Students.*** An authority on computers in education, Dr. Marks is a frequent lecturer at conferences and guest on television and radio interview programs.

Creating The First Virtual High School of Science and Mathematics — Mary Ellen Verona, Pioneer Educator

The National Science Foundation awarded $442,649 to Montgomery Blair High School in Maryland for the purpose of creating the first "virtual high school of math and science.

Pioneer NetTeacher, Mary Ellen Verona of Montgomery Blair High School is the creator and Principal Investigator of the Maryland Virtual High School of Mathematics and Science Project.

Initially, six high schools from the State of Maryland will be linked together via the Internet. Each participating school will have a dedicated 56kbs line. This connection will allow many students to search and communicate online simultaneously through local area networks attached to the school Internet hub. In addition, each high school will receive a 486 DX2 66 mh Gateway computer running the LINUX operating system. Software will be installed to allow this computer to act as a mail, gopher and world wide web server.


Maryland Virtual High School
File Edit View Go Bookmarks Options Directory Help
The Maryland Virtual High School
MVHS
of
Science and Mathematics

The Maryland Virtual High School W3 Page

Montgomery Blair High School is initiating a program to encourage students and teachers to communicate with peers and mentors in carrying out computationally based, visually compelling, science investigations using advanced scientific tools.

Two teachers from each school will receive training in integrating techniques of computational science into their courses at special workshops. Project staff members from Montgomery Blair high school will also be available to train other school personnel in Internet use on site.

Students at these schools will collaborate with other students at the other schools in creating computational models of processes such as climate phenomena, animal population changes, and planetary motion. The Internet will provide access to tools, data, mentors and high speed computers as well as a means of communication.

University students will serve as consultants in initiating and trouble shooting full capabilities of the network.

Students will be able to run clients such as Mosaic on connected computers. The school will also receive a MacIntosh portable computer. Professional software, such as the STELLA modeling tool and spreadsheets, will also be provided.

All schools with Internet connections will have access to an archive of all projects and other activitiesd of the Maryland Virtual High School.

For more information, point to URL: gopher://goober.mbhs.edu:70/11/mvhs and URL:ttp://goober.mbhs.edu/~sbuczko/m

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WORKING FOR CHANGE

The Transforming Schools Consortium (TSC)—Working To Create Information Age Schools.

■ The Transforming School Consortium (TSC), a national organization of innovative school districts, invites other districts to work with them to improve schooling. TSC envisions that every student can master the behaviors, skills, and knowledge essential for becoming a contributing member of society. The journey to achieve that vision is guided by four compass points: personalized learning, systemic change, transformational technology, and comprehensive collaboration.

This fall, the Consortium became the first national group whose members have committed to sharing resources with each other. The Consortium believes that in the era of reduced funding for education, school districts cannot afford to wait for additional federal or state dollars. School districts can help one another by exchanging ideas and personnel. By bringing together the wealth of talent in school districts across the US, it is believed that administrators, teachers, parents and students can systemically learn from each other.

Members of the Consortium are well-known for ducational innovation. They include a RJR Nabisco New Century School, an Apple Classroom of Tomorrow, a school President George Bush cited as a model for the future, a district highlighted in a video on technology produced by the American Society for Super-vision and Curriculum Development (ASCD), and Redbook and Blue Ribbon award winners.

For further information about TSC, contact Ralph Brauer, Executive Director, at:

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One Appletree Square
Suite 1548
Bloomington, MN 55425
tel: +1 612/853-0195
fax: +1 612/853-4202,
e-mail: tsc@norris.org

San Carlos Receives A PTI Innovative Management Partnerships Award

On December 14, 1994, the City of San Carlos and the San Carlos Elementary School District won a national Technology Achievement Award from Public Technology Inc. (PTI) in recognition of their Technology Goes to School Program.

The PTI Technology Achievement Contest drew over 250 nominated programs from cities and counties throughout the United States. Of these nominated programs, 26 were selected as award winners by a panel of public and private sector experts.

Technology Goes to School is a unique City/School partnership that helps both agencies make the most of computer technology. Under the program, the City of San Carlos purchases computer hardware and software, develops training programs and long term technology plans for both the City and the School District.

By aggregating the school district's purchasing power with its own, the City has purchased computer technology at lower costs, saving both partners over $20,000 in the program's first nine months alone. In addition, the program has been involved in completing the City Hall local area network, securing a $50,000 grant for a student multimedia database to enhance the classroom experience, installation of a fiber optic link to the City Senior Center and a training program for top school administrators and principals called "Technology Boot Camp."

School Board Trustee Henk van der Schoor said that "The Technology Goes to School program has been a very positive experience for the San Carlos School District. It has enabled us to take our existing efforts to bring computer technology to the schools to the next level. The exciting part is that the program is just beginning. I think this program is going to continue to pay dividends for the school district and the school staff, teachers, parents and students in the coming months."

The annual PTI Technology Achievement Awards program is designed to spotlight the innovative ideas and practices of America's most innovative cities and counties. Public Technology, Inc. (PTI) is the non-profit technology organization of the National League of Cities (NLC), the National Association of Counties (NACo), and the International City/County Management Association (ICMA).

For More Information, Call:

Brian Moura, City of San Carlos (415) 802-4210
Don Shalvey, San Carlos School District (415) 508-7333
Costis Toregas, Public Technology Inc. (202) 626-2400

13102 Weather Vane Way, Herndon, VA 22071-2944 USA ISSN 1070-2954

NetTeach News

GALILEO — PROMOTING COLLABORATION IN SCIENCE

Galileo is an electronic lesson plan distribution list (at Majordomo@unr.edu) and science teachers' discussion list (at galileo@unr.edu) for people interested in grades Kindergarten through 12th.

TO SUBSCRIBE
9
Send an email message to MAJORDOMO@UNR.EDU with one of the following commands in the body of the message:

help	*gets a list of all of Majordomo's commands*
info galileo	*gets this page*
who galileo	*gets a list of Galileo subscribers*
get galileo index.all	*gets an index and description of Galileo lessons*
get galileo <filename>	*gets a file listed in index.all*
subscribe galileo <your@address>	*adds your name to the mailing list*
unsubscribe galileo <your@address>	*deletes you from the mailing list*

TO COMMUNICATE WITH GALILEO EDUCATORS:

To communicate with other Galileo subscribers, send an email message to GALILEO@UNR.EDU.

In addition to science-related lesson plans there are several other science-oriented resources in Galileo. An updated resource list is posted regularly to GALILEO and is available from Majordomo under the file name "index.all".

If you'd like to initiate or participate in a discussion with the other subscribers, you may send a message to Galileo@unr.edu.

If you have any questions or problems, please contact the Owner: protz@scs.unr.edu or galileo-approval@unr.edu

Bill Protz
<protz@scs.unr.edu>
P.O. Box 5222
Reno, NV 89513-5222 USA

NEW VIDEO HIGHLIGHTS I*EARN STUDENT PROJECTS USING THE INTERNET

"A Global Gateway for Kids" is the title of a new videotape on K-12 telecommunications prepared by the Southwest Educational Development Laboratory (SEDL) under contract with the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education.

The Southwest Educational Development Laboratory produced the videotape to highlight examples of student projects on the Internet which might be used as models for replication. Project examples were selected from I*EARN (International Education and Resource Network). I*EARN is a non-profit global K-12 telecommunications network.

The videotape can be used to demonstrate the value of educational telecommunications in local schools and their communities to teachers, administrators, parents, community leaders, and local funders, etc.

"The International Education and Resource Network (I*EARN) has a vision of making the world a better place by connecting kids using telecommunications," writes the producers of the videotape at SEDL. "This video highlights activities of kids in schools in New Mexico who are participating in various projects sponsored by I*EARN. These students communicate with people in Nicaragua, Argentina, Bosnia, and other countries around the globe."

"Through telecommunications, they are learning traditional skills and content in nontraditional ways " the Southwest Educational Development Laboratory reports. I*EARN is preparing students to be global citizens and helping them learn that 'one kid can make a difference.'"

I*EARN is a global telecommunications network of over 1,000 elementary and secondary school sites in 25 countries. Through the network, students and teachers communicate via electronic mail, online conferencing, video speaker telephones, and student exchanges to implement educational projects. Students and teachers gain experience with the Internet superhighway, cross cultural communication skills and global awareness, as well as an enhanced motivation for learning about their world.

I*EARN is unique in that it actively integrates the worldwide networks and projects of international development and youth-service organizations to enhance its global educational program. All I*EARN participants in the U.S. are provided with all Internet tools, such as gopher, World Wide Web, telnet, etc.

*For information on I*EARN, contact the I*EARN International Secretariat, 345 Kear Street, Suite 200, Yorktown Heights, NY 10598; +1 914/962-5864; E-mail: <iearn@iearn.org>.*

For a copy of the SEDL videotape (cost: $9.00, which includes postage), contact: SEDL/OERI; Southwest Educational Development Laboratory; 211 East 7th Street, Austin, TX, 78701; Tel: +1 512/476-6861

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NetTeach News

EARTHQUAKE — A GLOBAL LEARNING EXPERIENCE

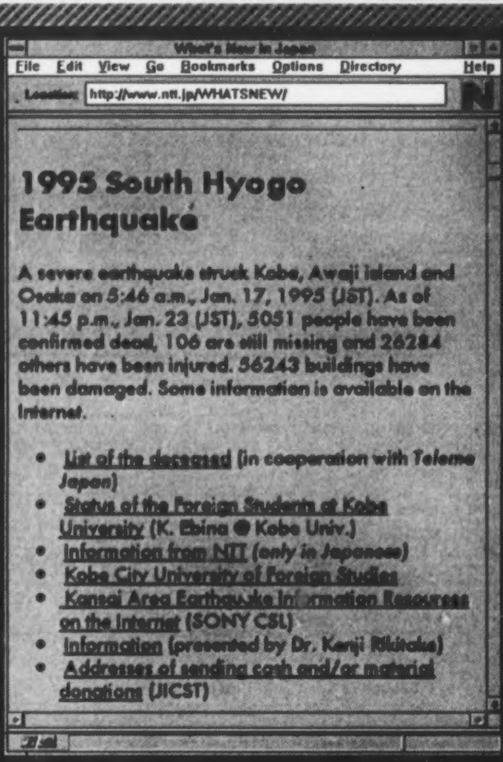
On January 17, an earthquake with a magnitude of 7.2 on the Richter Scale struck Kobe, the chief port of Japan's industrial heartland at the center of Honshu, the country's largest island.

Within hours after the quake hit, messages were already being sent via the Internet from survivors to friends and relatives around the world.

Quickly, the Global Internet Learning Village mobilized into action looking for information about the extent of devastation, for specific information about friends and relatives, for general information about earthquakes and disaster relief, and finally for ways to reach out to the people of Kobe to give help and comfort.

When teachers and parents ask me what is so special about the Internet and why should schoolchildren be using it, I can give no better reason than the global village-building process that this technology seems to foster.

For years, television has chronicled human tragedy and the devastation wrought by earthquakes and volcanic eruptions. For centuries, books have reported on the dynamic earth and its impact on human civilization. Now networking technologies support real time photographs, real time transmission of vital scientific data, and finally and perhaps most significantly empowers all people by giving them a tool for collaboration, cooperation, and communications.


What's New in Japan
File Edit View Go Bookmarks Options Directory Help
Location: http://www.ntt.jp/WHATSNEW/

1995 South Hyogo Earthquake

A severe earthquake struck Kobe, Awaji island and Osaka on 5:46 a.m., Jan. 17, 1995 (JST). As of 11:45 p.m., Jan. 23 (JST), 5051 people have been confirmed dead, 106 are still missing and 26284 others have been injured. 56243 buildings have been damaged. Some information is available on the Internet.

- List of the deceased (in cooperation with *Teleme Japan*)
- Status of the Foreign Students at Kobe University (K. Ebina @ Kobe Univ.)
- Information from NTT *(only in Japanese)*
- Kobe City University of Foreign Studies
- Kansai Area Earthquake Information Resources on the Internet (SONY CSL)
- Information (presented by Dr. Kenji Rikitake)
- Addresses of sending cash and/or material donations (JICST)

Date: Tue, 17 Jan 1995 09:09:25 -0800
Sender: School Library Media & Network Communications <LM_NET@suvm.syr.edu>
Subject: Re: Earthquake fingers

You can "finger quake@" at the following computers according to an Oct 10 list:
fm.gi.alaska.edu - Alaska
scec.gps.caltech.edu- southern Cal
gldfs.cr.usgs.gov- large world wide
sleuas.slu.edu- central US
seismo.unr.edu - Nevada
equinfo.seis.utah.edu - Utah
andreas.wr.usgs.gov - Northern California
gldfs.cr.usgs.gov - world wide earthquakes

Sue Weiss
Librarian
Ballard HS
Seattle, Wa
On Tue, 17 Jan 1995, Fred Muller Newton wrote:

> Does anyone know how to finger earth-

It's 46 minutes past midnight in Machikaneyama,Toyonaka, Osaka. We're pretty close to the active fault from Awajishima-Kobe-Takarazuka, which caused the major disaster about 19 hours ago. We're OK - but people in Kobe city are now shivering and starving.

Kobe was the host city of INET'92, a successful first INET conference held by Internet Society. But the city is now a mere debris. And the southern coast of city is still BURNING. Food supply is low, traffic is congested, and trains cannot reach Kobe.

I don't think you can send food or water to Kobe just right now, but you can help people in Kobe by sending support to Japan Red Cross. Please contact your local Red Cross chapter for details.

I fortunately have access to water, gas, electricity, and even to Internet. But people in Kobe have virtually none. Smaller but shakey tremors are still attacking the city. Please help Kobe, since they hosted Internet Society.

Kenji Rikitake

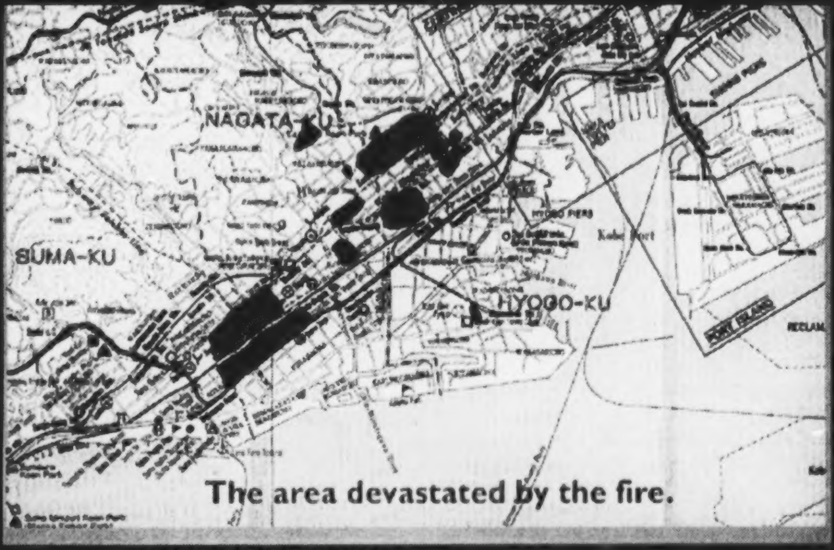
13102 Weather Vane Way, Herndon, VA 22071-2944 USA ISSN 1070-2954

NetTeach News

The Power of the Net

THE KOBE EARTHQUAKE — A GLOBAL INTELLIGENCE NET

The Internet is democratizing communications. Because of these global networks, schoolchildren, their teachers, and citizens around the world can in minutes download photographic images such as those shown here of the Kobe earthquake, maps showing seismic activity and devastated areas, lists of victims and first-hand observations of people from the area of devastation. People no longer have to rely solely on mass media communication systems to receive their news, but can now turn to common folk in the streets and experts in their laboratories for fast-breaking news and expert interpretations and analyses. The Internet is supporting a global grassroots intelligence and communications network.



The area devastated by the fire.

http://www.kobe-cufs.ac.jp/kobe-city/whatsnew/images/Jan18/burn2.gif FIRE [PHOTO (TOP LEFT)]

http://www.kobe-cufs.ac.jp/kobe-city/whatsnew/images/Jan18/highway1.gif HIGHWAY COLLAPSE [PHOTO (TOP RIGHT)]

http://www.kobe-cufs.ac.jp/kobe-city/whatsnew/images/map.gif AREA DEVASTATED BY FIRE [MAP (CENTER)]

http://www.kobe-cufs.ac.jp/kobe-city/whatsnew/images/Jan22/01.RAINY.DAY.gif [PHOTO (BOTTOM LEFT)]

SEE ALSO:
http://www.ntt.jp/WHATSNEW/(English)
http://www.ntt.jp/QUAKE/

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EARTHQUAKE —PEOPLE REBUILDING TOGETHER

The Internet is more than a global repository of knowledge and more than a people's news agency, it is also the invisible hand of humanity. It provides people in different parts of the world, a channel to reach out to one another directly—citizen to citizen—and convey feelings. For people, it is a virtual alter, a virtual podium, a virtual stage, a virtual congregation, and a virtual couch. It is much more than a window to the world; it is the tunnnel that leads out of the cave to the surface and to the true source of light. In this new world, our neighborhoods are truly cosmic.

Date: Thu, 19 Jan 95 20:29:51 EST
To: Multiple recipients of list
<wwwedu@kudzu2.cnidr.org>
Subject: Earthquake in Japan

While cruising the internet, I tried out one of the WWW addresses which have a collection of K-12 home pages:

http://hillside.coled.umn.edu/others/html

On the home page is a list of countries. If you select number 7 for Japan, you connect to the home page of Akatsukayama High School in Kobe. This page includes a link to the Kobe City home page, which has information and 25 images of the earthquake damage. The images require a piece of software I do not have, so I could not view them, but on other (previous) pages there are viewable images and maps of Japan and the Kansai region, including locations of the major cities.

-- Bob

From: Hubert CHRISTIAEN
To: k12-euro-teachers@lists.eunet.fi
Date: Fri, 20 Jan 1995 10:04:20 MET+0100
Subject: Earthquake in Kobe

In addition to being able to send letters and drawings to the children of Kobe via snail mail, APICNET has just set up an E-mail account for goodwill messages: KOBE@APIC.OR.JP The snail mail address for letters and drawings is:

ATTN: Kobe
APICNET Secretariat
c/o Global Commons
Yamazaki Bldg. 3F 2-10-18
Okubo, Shinjuku-ku
Tokyo, 169, JAPAN

We will forward all E-mail and snail mail to schools in Kobe.

Late yesterday evening I received another message from Tohru Asai, a teacher from Kobe Nishi High School.

\>Last year when the earthquake occurred in Los
\>Angles, the US government and volunteer
> organizations reacted quickly. I wonder why the
\>Japanese government and public organizations
\>here couldn't do the same.
>
\>That's not to say the government and relief
\>organizations here haven't done anything at all. I
\>think they've made quite an effort, but the
\>damage has been so widespread and the
\>situation is so tragic that I can't help but feel
\>sorry for the victims. We are looking forward to
\>seeing what kind of relief supplies President
\>Clinton is sending us.

From: Diane Morris
To: Multiple recipients of list
<wwwedu@kudzu2.cnidr.org>
Subject: Re: Earthquake in Japan

The direct connection to this site is:
http://www.kobe-cufs.ac.jp/kobe-city/
It is worth checking out.

Diane Morris
Teacher-in-Technology at URI
Bristol, Rhode Island USA

Date: Fri, 20 Jan 1995 13:26:01 -0800 (PST)
From: sclazie@cln.etc.bc.ca (Scott)
Subject: Japanese earthquake E-Mail?

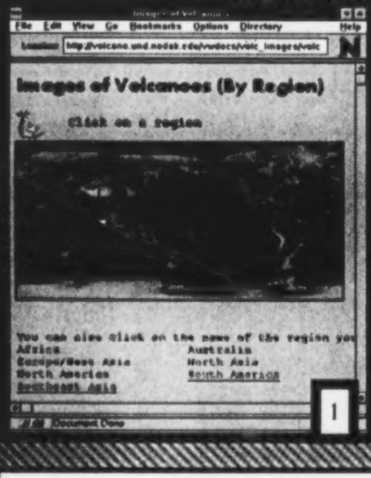
One of my students is from Kobe where the recent earthquake took place. She would very much like to try and get some information to or from that area. Does anyone know of the E-Mail address which give information about casualties damage etc. - we already subscribe to the Disaster Information List. We thank you in advance for your guidances.

Cheers. Scott Clazie (Conan the Librarian)
Senior School Librarian Glenlyon-Norfolk Senior Victoria, B.C.

NetTeach News

PLACES TO LEARN

WEB SITES FOR THE CHANGING EARTH — VOLCANOES


File Edit View Go Bookmarks Options Directory Help
http://volcano.und.nodak.edu/vwdocs/volc_images/volc
Document Done
1

Images of Volcanoes (By Region)

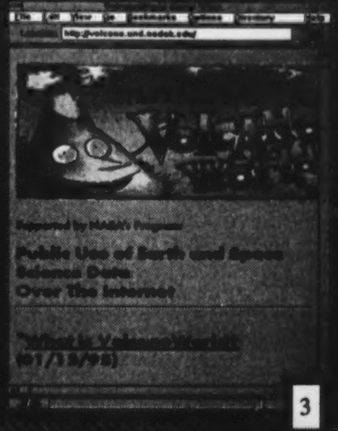
Click on a region

You can also click on the name of the region you

Africa
Australia
Europe/West Asia
North Asia
North America
South America
Southeast Asia

File Edit View Go Bookmarks Options Directory Help
2

Mount Vesuvius, Italy


http://volcano.und.nodak.edu/
3

Supported by NASA's Program

Public Use of Earth and Space Science Data Over The Internet

"What is Volcano World?"
(01/13/95)

WEB SITES TO CHECK OUT:

❶ IMAGES OF VOLCANOES BY REGION
URL: http://volcano.und.nodak.edu/vwdocs/volc_images/volc_images.html

❷ MT VESUVIUS URL: http://volcano.und.nodak.edu/vwdocs/volc_images/img_vesuvius.html

❸ VOLCANO WORLD HOME PAGE URL: http://volcano.und.nodak.edu/

❹ NASA EOS IDS Volcanology Page URL: http://www.geo.mtu.edu/eos/

❺ CASCADES VOLCANO OBSERVATORY HOME PAGE
URL: http://vulcan.wr.usgs.gov/home.html

OTHERS NOT SHOWN:

LESSON PLAN 1" Evaculating a Volcano
URL: ttp://volcano.und.nodak.edu/vwdocs/vwlessons/Lesson1/lesson1.html

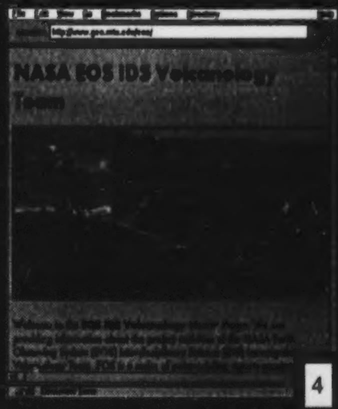
Michigan Technology University Volcanoes Page
URL: http://www.geo.mtu.edu/volcanoes/

NASA FACTS Volcanoes and Global Climate Change
URL: http://spso2.gsfc.nasa.gov/NASA_FACTS/volcanoes/volcano.html

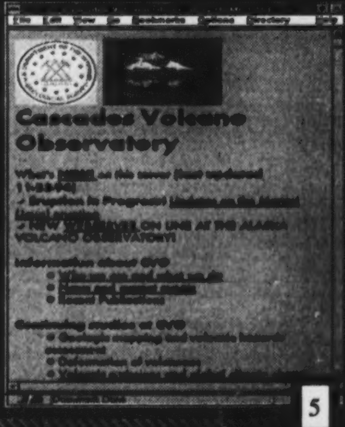
EOS Project Science Office
URL: http://spso2.gsfc.nasa.gov/spso_homepage.html

Global Volcanism Network (Smithsonian)
URL: gopher://nmnhgoph.si.edu/11/.gvp

The Electronic Volcano (Guide toInformation on Active Volcanoes)
http://mmm.dartmouth.edu/pages/stoiber/elecvolc.html


http://www.geo.mtu.edu/eos/
4

NASA EOS IDS Volcanology Team



Cascades Volcano Observatory

PLACES TO LEARN

NEW WEB SITES

❶ *The Illinois Leaning Mosaic*
URL:http://calliope.ncsa.uiuc.edu/ILM/ILMHome.html

❷ *The Illinois Learning Mosaic Internet Resources for Educators*
URL: http://calliope.ncsa.uiuc.edu/ILM/IntResources/EduNet.html

❸ *The Discovery Channel Canada,*
URL:www.discovery.ca

❹ *US CONGRESS*
URL: http://www.house.gov

THE FACE OF VENUS: AN INTERACTIVE ATLAS DATABASE AND DOCUMENT

URL: http://stoner.eps.mcgill.ca/bud/first.html

The Face of Venus (FOV) is an interactive document, database and atlas of surface features of the planet Venus. It is a general introduction to Venus, as well as an introduction to volcanic, tectonic and impact structures on Venus.

Our Home, The Atlas of Canadian Communities

URL: http://ellesmere.ccm.emr.ca/ourhome/communit/ourhome/introduc.html

This web site contains a subset (10) of over 100 communities from the MapInfo based CD-ROM version of this digital atlas. The atlas reflects the views of Canadian elementary and high school students within their respective communities using text, maps, photographs and drawings.

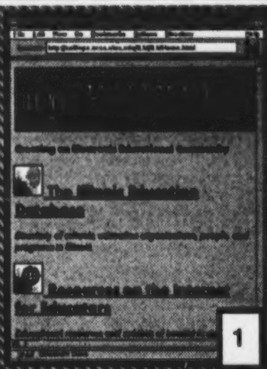
The Apple Virtual Campus.

URL:http://www.info.apple.com/hed/home.html

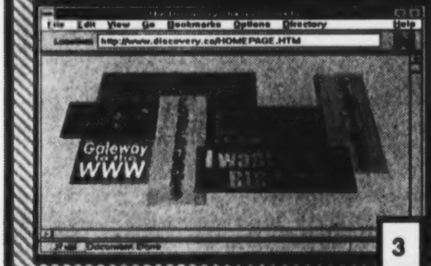
Offers new material and pointers of particular interest to higher education faculty,students and staff. The page will be growing and developing over time.

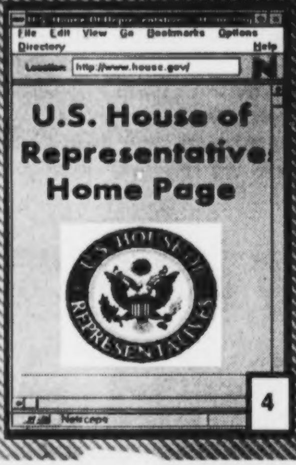
Langley Junior and Infant School's Web Home Page, the UK's first school home page.

It is temporarily at: URL: http://www-bprc.mps.ohio-state.edu/cgi-bin/hpp/langleyji.html



INTERNET RESOURCES FOR EDUCATORS
2


File Edit View Go Bookmarks Options Directory Help
http://www.discovery.ca/HOMEPAGE.HTM
Gateway to the WWW
3


File Edit View Go Bookmarks Options Directory Help
Location: http://www.house.gov/
U.S. House of Representatives Home Page
Netscape
4

Network, USA Catalog of Internet Access Providers around the world.

URL: http://www.netusa.net/ISP/

Youth Consumer Database

URL: http://www.screen.com/streetcents.html

STREET CENTS ONLINE is a new WWW site to help teenagers be tough consumers.Different products and services are evaluated every week and added to the database, drawing on the research of the award-winning Canadian TV series.

Academy One and Nesput WWW Pages

Academy One URL http://nptn.org/homepages/linda/
Nesput :URL: http://nptn.org/homepages/linda/proj-sim.html

Academy One is the educational project of the National Public Telecomputing Network (NPTN) and NESPUT is the National Educational Simulations Project Using Telecommunications.

The Global Classroom Youth Congress

URL: http://www.mit.edu:8001/afs/athena/user/a/w/awillis/www/GCYC/GlobalCR.html

The Global Classroom Youth Congress has established a WWW server for public use. Its goal is to bring the voice of youth into cyberspace, particularly comments and recommendations from youth on the use of global networking and the Internet in schools.

Windham Hill Records

URL: http://www.windham.com

In the Windham Hill Listening Room, you can experience a broad range of song samples from a variety of artists. This comprehensive server also includes artists' biographies, tour dates, discographies and an open chat line for musical discussion.

NetTeach News

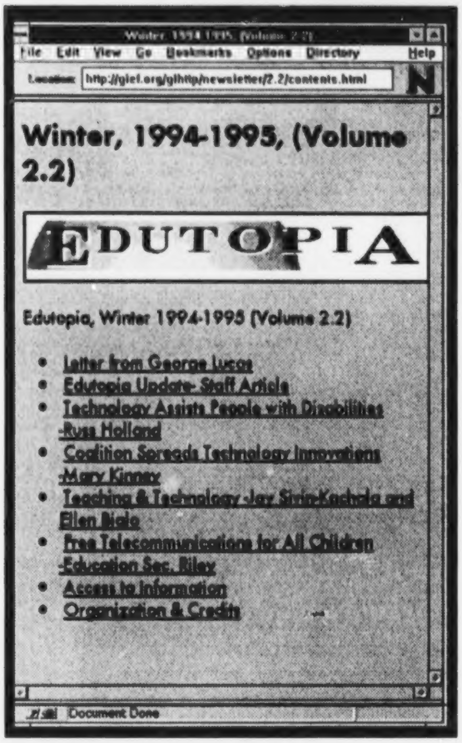
THE DIGITAL BOOKSTORE — RESOURCES

NEW RESOURCE AVAILABLE FOR MATH AND SCIENCE TEACHERS

The Eisenhower National Clearinghouse for Mathematics and Science Education at The Ohio State University, funded by the U.S. Department of Education, now has available a new online information service for science and mathematics education. Its first database, the ENC Catalog of Curriculum Resources describes a comprehensive, multimedia collection of materials and programs for K - 12 mathematics and science education. Catalog records for these materials are designed to assist teachers in selecting appropriate and high quality items for classroom use.

Additionally, ENC is creating a Digital Curriculum Laboratory (DCL) which provides access to a special collection of science and mathematics resources found on the Internet. Topics include: curriculum materials, standards, assessment, reform, professional development, and many others. Software, graphics, and text files, including ENC publications, can be found and downloaded. Available soon will be the ENC Database of Federal Programs where users will be able to find information about Federal resources available for mathematics and science education.

To access ENC's online services: telnet or gopher to enc.org. Another way to connect when using a modem is to dial 614-292-9040 or use our toll-FREE number 1-800-362-4448.


Winter, 1994-1995, (Volume 2.2)
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Location:
N
Document Done

http://glef.org/glhttp/newsletter/2.2/contents.html

Winter, 1994-1995, (Volume 2.2)

EDUTOPIA

Edutopia, Winter 1994-1995 (Volume 2.2)

- Letter from George Lucas
- Edutopia Update- Staff Article
- Technology Assists People with Disabilities -Russ Holland
- Coalition Spreads Technology Innovations -Mary Kinney
- Teaching & Technology -Jay Sivin-Kachala and Ellen Bialo
- Free Telecommunications for All Children -Education Sec. Riley
- Access to Information
- Organization & Credits

EDUTOPIA is the newsletter of the George Lucas Foundation. It provides updates on foundation activities and features articles that relate to the successful integration of technology in teaching and learning environments. It is published twice a year in November and May. Web surfers can point to: URL: http:www.glef.org/ and gopher diggers head to: gopher.glef.org

The George Lucas Educational Foundation was founded in 1991 with the mission to " facilitate the interactive uses of multimedia technologies to enhance teaching and learning."

For more information about The George Lucas Educational Foundation write to:

P.O. Box 3494
San Rafael, CA 94912 USA
Telephone: +1 415 662-1600

THE "ONLINE LIBRARY" OF THE US DEPT OF EDU OPEN FOR BUSINESS

Reporters, policymakers and parents can retrieve the full text of the recently reauthorized Elementary and Secondary Education Act (ESEA) -- via the Internet -- through the U.S. Department of Education's "Online Library." Also available:

- Descriptions of more than 5 promising schoolwide programs under title I of ESEA
- A Teacher's Guide to the U.S. Department of Education
- Reports by the National Education Goals Panel, including portions of the Community Action Toolkit
- Various research reports and education statistics compilations;
- "Pointers" to other education resources on the Internet, including the National Parents Information Network.

To access Online Library, several routes are available:

- Worldwide Web (WWW) -- The department's WWW server can be reached through the uniform resource locator (URL) at: "http://www.ed.gov/". The ESEA legislation is located under "Department-wide Initiatives."
- Gopher -- To use gopher, type the address, "gopher.ed.gov". Or, select ALL OTHER GOPHERS/North America/USA/General/ Department of Education (Within that directory, the ESEA legislation is located under: "Elementary and Secondary Education (OESE) and Early Childood / Improving America's Schools Act of 1994 (ESEA)/".
- Anonymous ftp to: "ftp.ed.gov".
- E-Mail --Send a message to:"almanac @inet.ed.gov". In the body of the message type, "send catalog." -

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THE VILLAGE GUIDE

FEBRUARY

7-11 February **Texas Computer Education Association (TCEA) 15th Annual State Conference,** Austin Convention Center, Austin, TX; Contact: Robert Knight, Executive Secretary, TCEA;tel: +1 800 282-8232; fax +1 806 799-0906; e-mail: knight@tenet.edu.

28-3/3 February ICTE Orlando '95, **"Leadership for Creating Educational Change: Integrating the Power of Technology";** Orlando, FL; Tom Sechrest, 12th International Conference on Technology and Education, The University of Texas at Austin, College of Education, EDB 518, Austin, TX 78712 USA; tel: + 1 512/471-4080; fax +1 512/471-8786; E-mail:sechrest@mail.utexas.edu.

MARCH 1995

9-12 March **The European Council of International Schools** is holding its next ESL conference in Amsterdam, The Netherlands. Speakers include: Mario Rinvolucri, Catherine Walter, Jane Ravell, Tim Bowen; Bernadette van Houten For more information and details of how to register, contact one of the following: e-mail: Virginia Weegenaar <virginia@esl.xs4all.nl> ; Snail mail: Jenny Schuitemaker AFCENT International School, Ferdinand Bolstraat 1, 6445 EE Brunssum, The Netherlands

APRIL 1995

29 April to 2 May. **AusWeb95** - Ballina Beach Resort, Ballina, Far North Coast of New South Wales, Australia. The conference email address is AusWeb95@scu.edu.au The conference URL is http://www.scu.edu.au/ausweb95/ For further information on AusWeb95: Norsearch, the university conference organisers: Sheridan Daley, Email: mailto:sdaley@scu.edu.au ;+61 66 20 3922 Fax: +61 66 22 1954/ Stewart Hase, Email: mailto:shase@scu.edu.au +61 66 20 3922 Fax: +61 66 22 1954

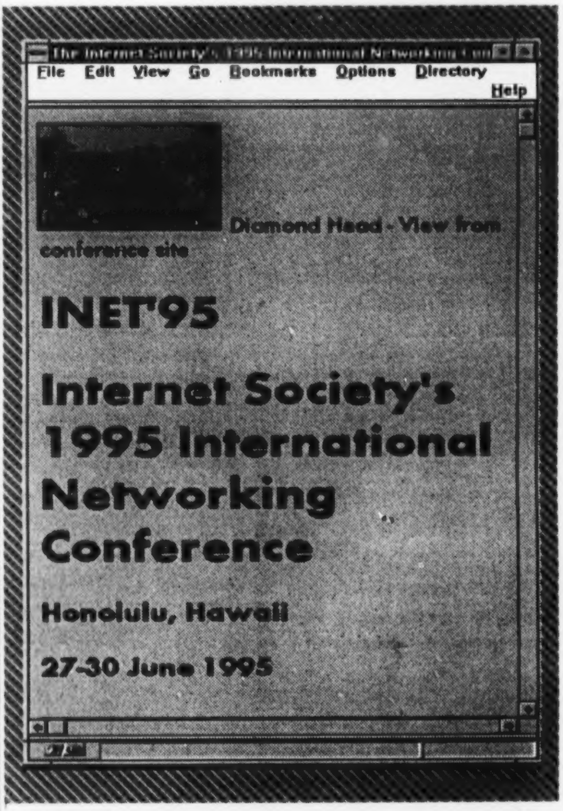
22-25 March **SITE'95 6th International Conferene** in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: <AACE@virginia.edu>

MAY 1995

22-24 May. **THIRD ANNUAL CONFERENCE ON RURAL DATAFICATION: Routing the Information Highway Down Main Street** in Indianapolis, IN. Rhana Jacot / CICNet, Inc. / 2901 Hubbard Dr. / Ann Arbor, MI 48105 Tel: +1 (313) 998-6521 (voice); +1 (313) 998-6105 (fax) http://www.cic.net/~rjacot/rjacot.html

June 1995

17-19 June **Emerging Technologies— Lifelong Learning, NECC'95.** Baltimore, Maryland. For information contact: NECC'95 , ISTE, 1787 Agate Street, Eugene, OR 97403-1923. Tel: +1 503-346-3537, fax +1 503-346-3509e-mail : PDKATZ@ oregon.uoregon.edu.



Diamond Head - View from conference site

INET'95

Internet Society's 1995 International Networking Conference

Honolulu, Hawaii

27-30 June 1995

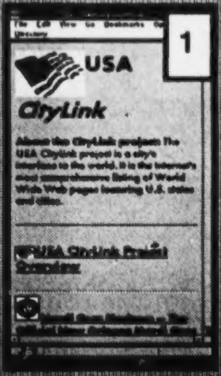
28-30 June. **INET'95 - Internet Society's 1995 International Networking Conference** in Honolulu, Hawaii. INET'95, the 5th Annual Conference of the Internet Society will focus on *The Internet: Towards Global Informatiion Infrastructure.* It will be held 27-30 June 1995 at the Sheraton Waikiki Hotel in Honolulu, Hawaii. This year there will be a whole track devoted to EDUCATION (K-12 developments).

Kathy Rutkowski, the Editor of this newsletter, is a co-leader of the Education Track with Michelle Huston of Australia. This is an opportunity for educators to meet with the technologists, and share problems and seek solutions. For more information:

URLs: http://www.isoc.org/inet/inet95.html
Mail: inet95@isoc.org (information only)
Mail: inet-registration@isoc.org
Tel: +1-703-648-988
800-468-9507 (in USA and Canada only)
Fax: +1 703-648-9887
Post: Internet Society Secretariat
12020 Sunrise Valley Drive, Suite 270
Reston, VA 22091 USA

NetTeach News

WEB SITES WORTH A VISIT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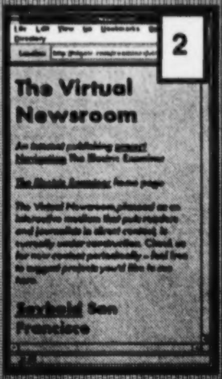
USA CityLink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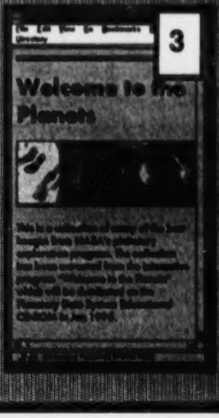
The Virtual Newsroom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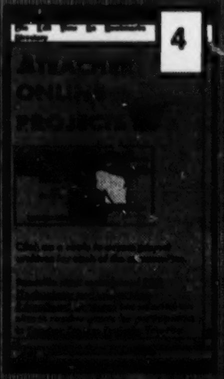
Welcome to the Planets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❶ USA CityLink
URL: http://www.NeoSoft.com:80/citylink/

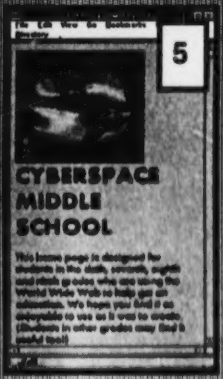
❷ The Virtual Newsroom
URL:http://sfgate.com/examiner/virtual.html

❸ Welcome to the Planets
URL:http://stardust.jpl.nasa.gov/planets/

❹ Teacher OnLine Projects
URL: http://informns.k12.mn.us/tops.html

❺ Cyberspace Middle School
URL: http://www.scri.fsu.edu/~dennisl/CMS.html

❻ Using Computer Networks in the K12 Classroom
URL: http://repository.gmu.edu:80/bcox/K12/00K12.html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CYBERSPACE MIDDLE SCHOOL

6

NetTeach News is the chosen newsletter for pioneer networking educators worldwide. It provides a forum for the exchange of information about how advanced networking technologies are changing society, and in particular the way we teach,learn, and deal with one another. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to emerging global living learning villages.

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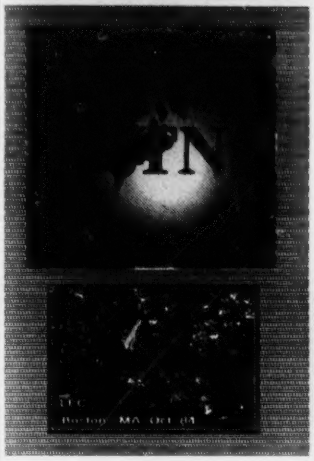
Connecting Learners Around The Globe



NetTeach News

FEBRUARY 1995 VOLUME TWO,NUMBER EIGHT

From [illegible] Learning Colonies To A [illegible] for Global Learners

Listen, my children, and you shall hear. Of the midnight ride of Paul Revere....

" Hang a lantern aloft in the belfry arch. Of the North Church tower as a signal light. One, if by land, and two, if by sea..."

...In the books you have read, How the British Regulars fired and fled. How the farmers gave them ball for ball....

....So through the night rode Paul Revere. And so through the night went his cry of alarm. To every Middlesex village and farm. A cry of defiance, and not of fear. A voice in the darkness, a knock at the door. And a word that shall echo forevermore! For borne on the night-wind of the Past. Through all our history, to the last. In the hour of darkness and peril and need. The people will waken and listen to hear. The hurrying hoofbeats of that steed. And the midnight message of Paul Revere.

Paul Revere's Ride by Henry Wadsworth Longfellow

"We have it in our power to begin the world again!"

■ Thomas Paine

New colonies of internetworking learners are appearing across the globe. Although the teachers and students who populate these colonies are few in numbers, their reach is global and their messages revolutionary

Not unlike Thomas Paine, an acknowledged firebrand of the American Revolutionary Period, these new cybernetic "hotheads" are declaring their independence from outmoded systems of education and are working together to build a whole new global system of learning.

Teachers are often not able to attend meetings, well , we can be a virtual force. For those who have no email, snail mail is a must. Please encourage your friends, parents, community to get a new agenda , a new direction for our schools.

■ COSNDISC posting of BonnieBracey, Educator

The American Revolutionary Sam Adams created "committees of correspondence" to provide a forum for disillusioned citizens to discuss their common problems. Today, educational discussions lists and newsgroups such as Ednet, Kidsphere, Wwwedu, LM-NET, and CoSNDISC are serving a similar function. Educators are using these groups to discuss common problems and define a common agenda.

Teachers and school librarians are a major force promoting change but there are other groups involved in this effort including parents, community activists, corporate leaders, educational managers, and researchers worldwide. All these visionaries are calling for a change in the way societies around the globe choose to educate their children.

"Nothing of Importance happened today."

■July 4, 1776 Diary entry of King George III

Ironically few people in the world recognize the importance of what is happening in these schools and classrooms where teachers and students are exploring and extoling the powers of the Internet. For those with some limited grasp of schools and networks, internetworking technology is viewed as yet another advanced technology most likely wasted on the immature

(See Colonies on page 3)

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NetTeach News

A Word from the Editor

The Armadillo Gopher Party

In 1773, some people in Boston decided to take on the King of England and the English Parliament. They dressed up as Indians and boarded a ship anchored in Boston harbor and dumped the cargo—fine English tea—into the Atlantic Ocean to protest "taxation without representation." The event was named The Boston Tea Party.

In 1991, some middle school teachers in the Houston Independent School District decided to take on a bureaucracy. They dressed up as politicians and lobbied for a "textbook waiver."that allowed them to use textbook money to eventual create the Armadillo Gopher. They did not burn the textbooks or toss them in the Bay but "The Armadillo Gopher Party" was in a sense a protest against "learning without representation."

There are significant differences between these two events and I will not belabor to draw correlations but it is important to understand that sometimes history is written by people whose names you will never read in a history book—some angry Colonists in Boston and some concerned middle school teachers in Houston. It is also important to point out that sometimes we all have to live our concerns and draw a line in the sand because the stakes are that high.

Children more than anyone need advocates. They need adults to stand up on their behalf and fight for their rights. Sometimes they are mature and capable of speaking out on their own behalf but in fact authority sometimes just doesn't listen to them and society in general regards them as less than a citizen. Indisputably there are laws to protect "minors" from the abuses of adult society and from their own "immaturity" but there are significant areas in the life of a child that are not protected as diligently as they should be and one of those areas sadly is education.

Fortunately, there are many wonderful teachers—remarkable teachers like those middle school teachers in Houston—who are willing to take on seemingly unyielding systems, and there are many equally involved parents willing to advocate for change. However, we must do more as a society to protect the rights of learners at all ages.

It is wrong for society to send our children into systems that do not respond to their learning needs and interest. It is wrong to stifle their imaginations and destroy their creativity. It is wrong to drug them, coerce them and deceive them into learning the way we want them to learn. It is criminal to treat them as some sort of monolithic group and not regard them as individuals with a soul, a heart, and a brain.

Networks are empowering all learners and do not discriminate against them on the basis of age. Yes there are potential problems and we must be vigilant in protecting youth from abuse and their own immaturity. However, we are obliged to protect their new found right to learn with excitement and energy.

This protection involves a new level of commitment in society to our institutions of learning and to all learners. We need to prioritize as a society just as the Colonist did back in 1773. Today, we need to wake up "we" the Kings and "we" the Parliament because "we" the citizens in this democracy are the authority and in this instance have been an unjust authority.

Shame on us who blame educators and the systems of education without first blaming ourselves for not giving education the resources it deserves. It is time for the global citizens of this world to stand up for all learners and give them what we have taken away—their freedom to learn and their dignity as learners. . Now more than ever there is a need for a new constitution, a Bill of Rights, that guarantee learners a stake in their own learning.

Editor: Kathy Rutkowski

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COLONIES (Continued from page 1)

minds of young students and their "hapless, harried, and bovine" K-12 educators.Indeed, most non-networking educators do not truly grasp the importance of this technology and comprehend how and why it is being used by other classroom teachers, school librarians, and students around the globe.

> *"Only a small fraction of our classrooms have real access to new technologies that are becoming so central to our lives."*
>
> ■Richard Riley
> Secretary of Education

Recently, the US Department of Education's National Center for Education Statistics released the report, *Advanced Telecommunications in U.S. Public Schools, K-12.* A key finding in this report that was based on a survey sent to 1,500 school principals was that only one-third of the nation's public schools claim to have access to the Internet. It goes on to report that nationally just 3 percent of rooms where teaching actually takes place are linked up to the Internet.

Many are viewing these statistics with great concern and frustration. It is understandable given the cost and newness of the technology that the deployment statistics reveal a limited deployment. Indeed, these statistics would be grim if the news from the internetworking classrooms was equally discouraging. The good news, however, is that most networking educators and learners are using their privileged access to spread rather than to smother the revolutionary potential of these networks.

In fact, a strong case can be made that these small global learning colonies in K-12 education are doing far more for the cause of networking and learning than any other networking segment in society. The pioneer educators who are using this technology are using it for one purpose and one purpose alone—to transform the status quo cultures of learning by empowering learners and their teachers.

> *'Having technology..., will NOT 'save' us from the 'moral and ethical', cultural and literate 'decline' we are experiencing. WHAT WE DO WITH IT as a tool to show and enable our students to gather information, analyze it, and form opinions, which will then lead to actions, MIGHT....as long as those opinions and actions are based on a sense of real caring for our fellow human beings and NOT on 'personal agendas'.*
>
> ■WWWEDU posting
> Mary Yates, Educator

The educator firebrands that are leading this revolution in learning recognize the seriousness of what they are undertaking and with great solicitude are promoting the use of global networks in education. Their ultimate objectives are not technological but pedagogic and underpinning all their efforts is a genuine desire to do good for society.

Projects like I*EARN Project and The Chatback Trust aim to cultivate a sense of global citizenry. Learners are brought together from around the world to undertake collaborative learning projects that will benefit not just these learners but all inhabitants of the planet earth.

Another major premise of all these learning colonies is that learners—even the youngest—can positively contribute to their world when they are empowered to learn and share their experiences and knowledge gained in the process of their learning.

Learning for the sake of learning is not enough. Learners must understand that they have a responsibility to share intelligence.. Not surprisingly, across the globe, these young empowered learners are giving back to society by giving of themselves in remarkable ways.

For every story revealed in the media of a youth that has misused this technology, there are hundreds of untold stories of youth who are using it to make a positive difference.

> *"The beliefs which we have most warrant for, have no safeguard to rest on, but a standing invitation to the whole world to prove them unfounded."*
>
> ■ *On Liberty*
> John Stuart Mill

Historically, the most interesting times have been those of tumultuous intellectual debate. We live in such a period today and to a signficant degree the most important intellectual challenge is occurring in classrooms, schools, and homes around the globe where the concept of "learning" is under reconsideration..

For those of us living this debate, we are anxious to see its outcome and yet we intuitively understand that our joy will be surfing the big wave, riding the crest but never reaching the shore.

One thing is certain—this wave is a powerful wave, and when it does reach the shore it is likely to result in a new constitution for global learners that guarantees certain inalienable rights such as the right to be an empowered learner , the right to be an empowered teacher, the right to be an empowered parent, and the right to be an empowered citizen of the world.

In that New Democratic World of learning, learners around the globe will harness the power of advanced information technologies to attain to new levels of knowledge that will help them and others lead a productive and satisfying life.

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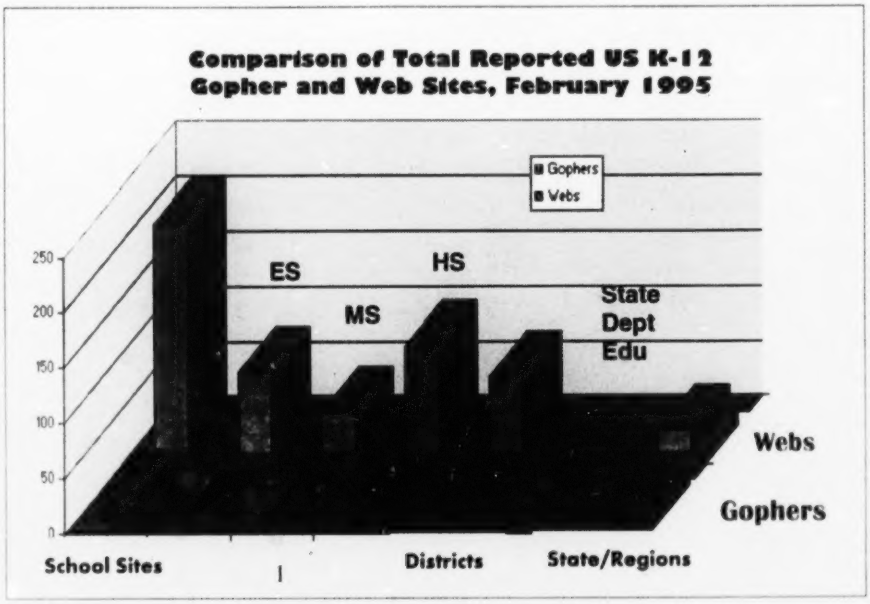
NetTeach News

New Frontiers of Learning

New Kids On The Web



Comparison of Total Reported US K-12 Gopher and Web Sites, February 1995

Source: Gleason Sackman's K-12 "Hot List"
URL: http://toons.cc.ndsu.nodak.edu/~sackmann/k12.html

The Expanding Internet

The Internet is rapidly growing As of January 1995, the number of interconnected networks doubled to some 46,318. There were some 4.851 million computer hosts on the Internet and that included a 26% growth rate for the fourth quarter of 1994—the largest jump in history!

Hosts designated under the "EDU" domain reached to 1.133 million, representing 23% of the total of computer hosts on the Internet. According to Gleason Sackman's "Hot List" as of February 8, 1995, schools from 41 states plus the District of Columbia reported having sites connected to the Internet. The "Hot List" reported 208 US school web sites, 25 gopher sites, and 9 telnet/ftp sites.

The K-12 Explosion

Although the absolute number of K-12 Internet sites is still relatively insignificant, these few represent not only a remarkable achievement by some outstanding educators and their students but also represent a whole new publishing industry—K-12 Network, Inc.

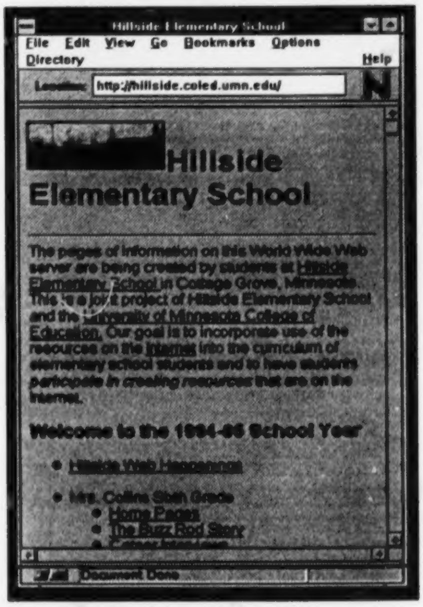
Teachers and students are fast emerging as a new source of information and knowledge. This is perhaps nowhere more evident than in the many excellent K-12 web sites. Clearly, html publishing has captured the imagination of this new class of publisher and they are eagerly exploring how to use this technology to transmit useful information to other students, teachers, and the general viewing public.

School webs offer glimpses into new learning colonies around the globe, places where learning is occurring in an exciting and different manner than any where else. As one clicks through these pages and reads student prose and views student artwork, one cannot help but feel the energy and excitement of generative learning.

The Early Adaptors

It has often been said that education is twenty years behind society in its adoption of new technology. The students and teachers who produced the web pages that will be highlighted here are lagging behind no one.

What is amazing is that these *New Kids on the Web* are exploring and cleverly exploiting technology that is still in its toddlerhood. What's even perhaps more amazing is that a whole year has passed since the Grand Rivers and Hillside Elementary Schools first announced their web site.and launched a K-12 Web Revolution.



Hillside Elementary School
File Edit View Go Bookmarks Options Directory Help
Location:
Document Done

http://hillside.coled.umn.edu/

Hillside Elementary School

The pages of information on this World Wide Web server are being created by students at Hillside Elementary School in Cottage Grove, Minnesota. This is a joint project of Hillside Elementary School and the University of Minnesota College of Education. Our goal is to incorporate use of the resources on the Internet into the curriculum of elementary school students and to have students participate in creating resources that are on the Internet.

Welcome to the 1994-95 School Year

- Hillside Web Happenings
- Mrs. Collins Sixth Grade
  - Home Pages
  - The Buzz Rod Story

Hillside ES, Cottage Grove, MN
URL: \http://hillside.coled.umn.edu/

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NetTeach News

Go, Web, Young Learners

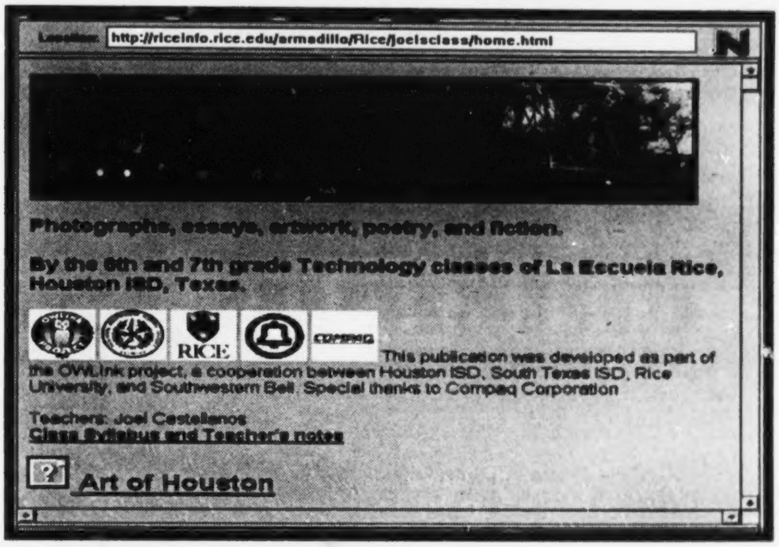
Student Publishers

EduNet-Impresssionism

The early K-12 webweaving efforts like indeed most new web productions were mostly autobiographical. However, teachers and students proved to be fast learners and are now creating web sites that contain Internet lessons, original student research, original teacher/student networking projects, and links to web sites around the world that contain information that can be used by the K-12 community.

Living Textbooks and New Curriculum

Increasingly K-12 webweavers are becoming the publishers of the new curriculum and the living textbooks. In some cases, these grassroot publishers have attracted government and corporate partners to help them support their technology programs and develop new curriculum that draws on the vast information sources of the Internet. These web pages have also attracted the attention of the traditional corporate educational publishers and some new educational publishers who are now exploring web pages as a means to deliver curriculum materials .



Location: http://riceinfo.rice.edu/armadillo/Rice/joelsclass/home.html
RICE
COMPAQ

Photographs, essays, artwork, poetry, and fiction.

By the 6th and 7th grade Technology classes of La Escuela Rice, Houston ISD, Texas.

This publication was developed as part of the OWLink project, a cooperation between Houston ISD, South Texas ISD, Rice University, and Southwestern Bell. Special thanks to Compaq Corporation

Teachers: Joel Castellanos

Class Syllabus and Teacher's notes

Art of Houston

The Rice School, Houston, Texas
URL: http://riceinfo.rice.edu/armadillo/rice/joelsclass/home.html

The Pedogogic Significance

A legitimate question often raised by parents and educators is, "What is the significance for the learner in net publishing other than the temporal "thrill" of global recognition, or Andy Warhol's famous "one minute of fame"—in this sense one nanosecond?" Moreover, is this sort of activity a legitimate school activity and is it worth the investment of faculty/stu-dent time and taxpayer or tuition money. It is easy afterall to get caught up in the hoopla of the technological zealots and be blinded to the primary goal of an educational system — promoting learning.

Measuring Learning

We live in a society that demands some sort of "success" measurements at periodic intervals. We are obsessed with statistics and eager for scientific assurances that all is well.

Today's parents pensively watch pediatricians plot an infant's growth and development on a growth chart. Just as pensively, many parents await the

(*See* **Student Publisher** *on next page*)

Gonzaga High School, Washington,D.C.
URL:http://www.gonzaga.pvt.k12.dc.us/

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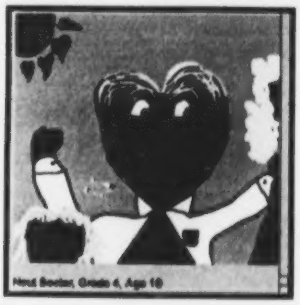
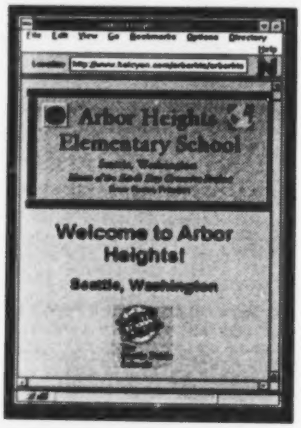
Student Publishers (continued from page 5)



Grady Brown ES
Hillsborough, NC
Nout Boctor, Grade 4
URL:http://stech.cnidr.org/schooltech/gbe.html

results of batteries of standardized intelligence tests taken prior to admittance into a pre-school or required for admittance into special enrichment programs. Others eagerly await the arrival of their childrens' report cards, and sink or soar with every C or A.

It is perhaps no wonder that educators also await statistical evaluations. Many a principal has felt the onset of an anxiety attack when the results of a school's Iowa test performance come back with a percentage decline.



Arbor Heights
Elementary School
Seattle, Washington

Welcome to Arbor Heights!

Seattle, Washington

Arbor Heights ES - Seattle, WA
http://www.halcyon.com/arborhts/arborhts.html

There is a purpose to such assessments of learning but it is also important to understand the limitations of standardized measurements and the need to view learning wholistically.

Most contemporary educators admit that current standardized tests of learning have significant limitations and are not perfect gauges of a student's abilities or their likelihood of "success."

In the opinion of the experts—including many of those who devise the standardized test—it is critical to cultivate positive attitudes towards learning as young as possible Contemporary pedogogic thinking also suggest that the more "engaged" the learner is in the process of learning, the greater the likelihood of ongoing and future achievement,

Electric Learning

Networking in schools is too new and too limited to yield any significant body of data that can adequately "measure" learning success. However, all one has to do is to go into a classroom where students are engaged in collaborative learning using the networks and just listen to the "buzz" in the air. This is not static electricity but rather "electric" learning.

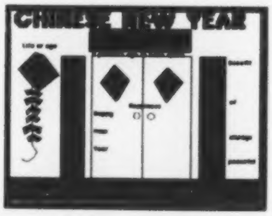
A serious tour of the K-12 web and gopher sites also yields significant evidence of successful learning. Perhaps the K-12 Web Parade may seem as flamboyant as the "Main Street" Electrical Parade in Disneyworld or Disneyland but these digital floats are conveying some powerful creative expressions and some excellent research.

Glenridge Middle School ARTLINK
URL:http://Glenridge.hp.html
Artwork by Clay Rikards, 8th Grade

Generative Learning

This generation of K-12 learners seem to thrive in multimedia environments, and web pages appear to be excellent outlets for their creativity. The whole new world of hypertext, hypermedia linked documents is a medium that seems particularly well suited to their imaginations and aesthetic sensibilities. Moreover, student newspapers, student artwork, student research, and student projects gain greater importance since they reach to a global audience. This global reach seems to encourage young creative artists and researchers to reach to new standards of excellence.

(Continued on next page)



Chinese New Year **by Terry Huang, Jennifer Bryant and Crystal Cassaeux, Middle School Students fro MidLink Magazine**
URL: http://longwood.cs.ucf.edu:80/~MidLink/chinese.ny.answer.GIF

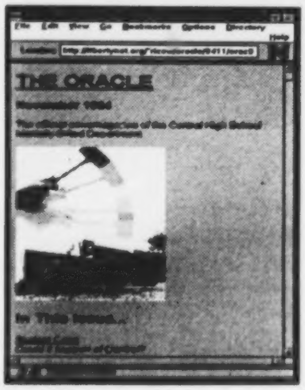
Net'Lectric Learning (continued)

Productive Learners

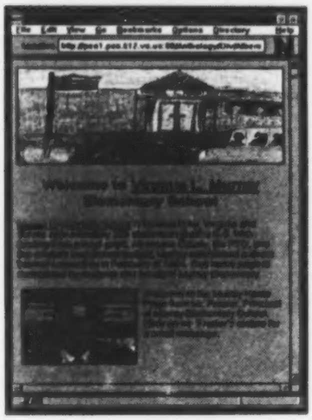
In the last decade, the workplace has yielded some significant insight into worker motivation. It is generally acknowledged that workers who have some ownership in the production process tend to be more self-disciplined and more committed to advancing the shared vision. It is also generally recognized that team or collaboratory work tends to increase productivity, particularly in "learning" or research-oriented enterprises. Finally, it is generally recognized that institutions that foster the personal and professional development of the individual worker are more likely to achieve success.

Educational research has yielded similar findings in regards to student motivation. Students tend to work more diligently on projects that they claim some ownership over. Students also tend to work well in collaboration with other students or in research teams. Finally, it is generally desirable but not always easy to promote an educational plan that supports individual learning styles, orientations, and interests.

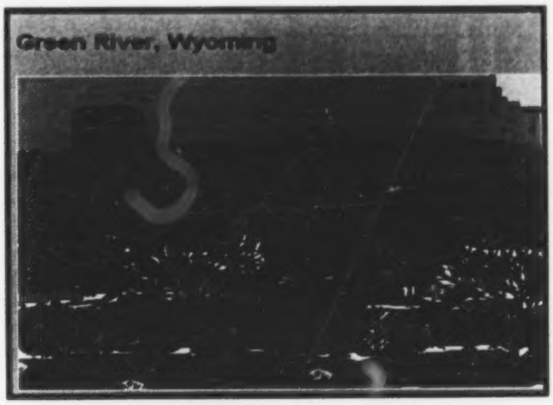
Students engaged in networking publishing and other network-based projects seem to be more motivated. In part this is because they are encouraged to work in a collaboratory manner and yet at the same time their individual needs, interests, and abilities can be better perceived and developed. Finally, it appears that the students engaged in these activities are further motivated by their ownership in the learning process. They are asked to create their own learning experiences in collaboration with other students and teachers in the school and around the world, and they are further empowered by the fact that what they do and say potentially has an immediate and global impact.



Central High School, Philadelphia, PA
The Oracle Magazine
URL: http://libertynet.org/~ricew/oracle/9411/orac9411.html



Murray ES — Ivy, VA
URL:http://pen1.pen.k12.va.us:80/Anthology/Div/Albemarle/Schools/MurrayElem/



Monroe Middle School Home Page —Green River, Wyoming
URL: http://monhome.sw2.k12.wy.us/
Artwork by David Hernandez and Caleb Bently

Conclusion

The New Kids on the Web are proving to be a very successful generational act and are not only demonstrating their remarkable creative and intellectual powers at the youngest of ages but also the real power of the technology to help make learning a very exciting career.

EKIDS -Electronic Kids Discussion List

On 26 January 1995, in celebration of Australia Day, the City Beach Senior High School in Western Australia initiated a new discussion listing listserv exclusively for K-12 NetLearners.

EKIDS is intended to be provide a forum for kids to discuss their experiences on the Internet and offer their peers relevant and useful information regarding interesting places to go in cyberspace for fun and research.

All email to the list will be archived daily in hypertext markup language (html) and made available for viewing on the City Beach Senior High School WWW server. This server is located at URL:

http://www.citybeach.wa.edu.au/mailarch.html
Although based in Perth Western Australia, school-children from all around Australia and from other countries are welcome to subscribe.

To subscribe to ekids send an email to:

majordomo@citybeach.wa.edu.au

In the main body of the text write:

subscribe ekids

Although unmoderated and 'open' the list will be monitored for correct netiquette and appropriateness by all members of the list.

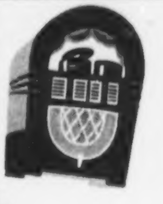
For further information contact Cres Thursby-Pelham, the listowner, at::
Graduate School of Education The University of Western Australia, Nedlands, WA 6009.tel: +61 9 385 8011 fax: +61 9 385 7159 mobile: 018 928 322
email: cpelham@ecel.uwa.edu.au // email: cres@uniwa.uwa.edu.au

Important Addresses:

Email address for ekids-list subscribers:
ekids@citybeach.wa.edu.au
Email address for ekids-list commands:
majordomo@citybeach.wa.edu.au
Email address for ekids-list owner:
majordomo-owner@citybeach.wa.edu.au

Virtual address for WWW server URL:
http://www.citybeach.wa.edu.au/ekids.html
Physical address: City Beach Senior High School, Western Australia 6015.

EDULISTS



Are Your Listservs getting you down? Are you bored with the conversation or lack thereof. Perhaps it is time for a change; time to check out somewhere else to go.

You need A List of All Listservs.

Send an e-mail message to:

Listserv@bitnic.educom.edu

In the main body of the message write:

list global

The list will be send to your mailbox.

NOTE: If your interest is solely in educational listservs, you can reduce the hits by addding the subject keyword educatiion to the above message for example:

list global/education

HAPPY HUNTING!

EPUb *—is a listserv for the discussion of how increased opportunities for electronic publishing are affecting publishers, teachers, students and schools.*

To subscribe, send a message to:

listproc@cosn.org.

In the main body of the message write:

sub epub Yourfirstname Yourlastname

For more information contact: Susan Mernit at:
smernit@path.net or smernit@aol.com

EDULISTS

YOUTH-ANX-DEP

is an open list for those involved in research and clinical practice in the areas of child and adolescent anxiety and depression. The group will take a scientist-practitioner approach to the nature, etiology, assessment, and treatment of anxiety and depression problems amongst children and adolescents.

To subscribe to the list , send an e-mail message to
Majordomo@avocado.pc.helsinki.fi

In the main body of the message write:
subscribe youth-anx-dep

Owner: Sue Spence **sues@psych.psy.uq.oz.au**
Director of Clinical Psychology Programs,Department of Psychology
University of Queensland, Brisbane, Q4072 Australia

BILINGUE-L

is a moderated forum for questions and discussion of any issues relating to assisting Spanish-speaking students to become proficient in English and yet maintain proficiency in Spanish as well as for English-speaking students developing proficiency in Spanish. Discussion may consider how to develop positive attitudes toward the two languages being learned and toward the communities they represent, and developing a positive self-image. More generally discussion may focus on areas of instruction, methods, evaluation, materials, and resources. Dialogue may be in either Spanish or English.

To subscribe to this list, send e-mail to:
listserv@Reynolds.k12.or.us and in
the body of the message, type

SUBSCRIBE BILINGUE-L your real name

Contributions to the list can be sent to Bilingue-L@Reynolds.k12.or.us
Moderator: Lynn Thompson Lynn_Thompson@Reynolds.k12.or.us

STARnet (Students At-Risk Network)

is an open, unmoderated discussion list.intended to encourage the exchange of ideas about programs, activities, and resources for at-risk youth, innovations in the area of at-risk services and education, appropriate legistlation involving at-risk youth, the promotion of equity and opportunities for all youth, especially those at-risk, networking local, state, national and international resources for needy youth.

To subscribe to the listserv, send an e-mail message to:

listproc@services.dese.state.mo.us

In the main body of the message write:

Subscribe STARnet Yourfirstname Yourlastname

Owner: Mike JeffriesMissourians for Students At Risk
mjeffrie@services.dese.state.mo.us

A LISTSERV TO DISCUSS A FUTURE VISION OF PLANET EARTH

WHOLESYS-L on listserv@netcom.com

The WHOLESYS-L Whole Systems is an open, unmoderated list intended to create and discuss a positive vision is for the discussion of:planet Earth as a whole system.

Discussions will explore whole system principles, particularly in regards to economic, ecological, sociological and metaphysical transformation of our civilization.

To subscribe send an e-mail message to:
listserv@netcom.com

In the main body of the message write:

subscribe wholesys-l

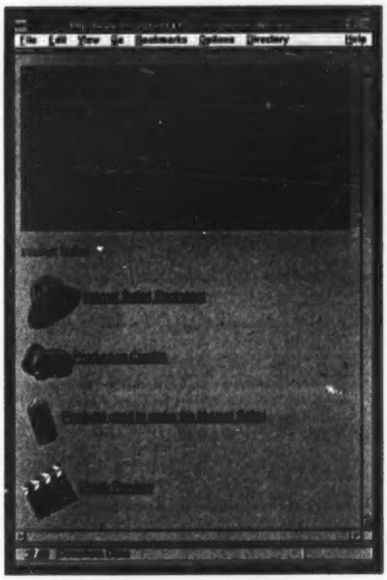
Listowner: Flemming Funch
e-mail:
ffunch@netcom.com
URL:
http://www.protree.com/worldtrans/

The Bloomfield Model High School Students Release The Internet Safari

Three talented and highly-motivated students at the Bloomfield Hills Model High School (Matt Weinbaum, Stephen Hunia, and Bill Wichers) have put together The Internet Safari, a multi-media introduction to the Internet . This tour took over 9 months to create and according to the students well over 500 working hours.

The Internet Safari offers users a slick and friendly interface. There are five different subject areas to explore including:

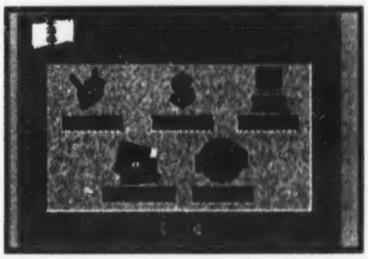
- What is the Internet?
- Internet Tools
- Internet Resources
- How we use the Internet,
- About MHS (The Model High School).


File Edit View Go Bookmarks Options Directory Help

The Internet Safari Page
http://www.bloomfield.k12.mi.us/CompCntr/safari/Inet.html

Location: http://www.bloomfield.k12.mi.us/CompCntr/safari/sneak.ht
N
Internet Safari® Sneak Preview

URL: http://www.bloomfield.k12.mi.us/CompCntr/safari/sneak.html



System Requirements

This tutorial will run on any color Macintosh which is capable of display 256 colors. To run the Internet safari you will need:

- -A Macintosh II, LC, Quadra, Centris, or PowerPC series computer
- -8-bit color and any color monitor (14" minimum)
- -System 6.05 or 7.x
- -Approximately 40 MB of disk space
- -4 MB RAM is recommended
- -Internet connectivity and software that does file transfers via FTP.

Safari Distribution

The Internet Safari is available from any Info-Mac mirror site including

oak.oakland.edu
/pub/macintosh/Internet/Internet_Safari_v1.0.pt1.hqx
/pub/macintosh/Internet/Internet_Safari_v1.0.pt2.hqx
/pub/macintosh/Internet/Internet_Safari_v1.0.pt3.hqx
/pub/macintosh/Internet/Internet_Safari_v1.0.pt4.hqx
/pub/macintosh/Internet/Internet_Safari_v1.0.pt5.hqx

For further information please write to Support@mhs-server.bloomfield.k12.mi.us
Or connect to our WWW server at:
WWW.BLOOMFIELD.K12.MI.US

File Edit View Go Bookmarks Options Directory Help
Welcome to the Model High School

Model High School
URL: http://www.bloomfield.k12.mi.us/

ISSN 1070-2954

WORKING FOR CHANGE

NetTeach News

The Voices of Youth Project — Kids Speaking Out!

In March 1995, more than 90 world leaders will gather in Denmark for the World Summit for Social Development. The United Nations has designed an exhibition at this meeting, equipped with computers connected to the Internet, where presidents, prime-ministers, kings and queens can read and respond to the voices of young people around the world.

At the Summit, leaders will sign an action agreement on three very important issues:

- Poverty
- Unemployment
- Social Conflict.

The Voices of Youth project will be viewed by thousands of participants at the Summit and, potentially, by millions of others on-line over the coming months.

How To Participate
By E-Mail

Students are asked to think about some of the questions below and the three issues of the Social Summit and then e-mail their ideas to <unicefwssd@igc.apc.org> and their message will be included on a World Wide Web (WWW) site on INTERNET and in the UN exhibit in Copenhagen.

VIA THE WORLD WIDE WEB

IFor those having access to the WWW you can visit a multimedia interactive environment established by the UN at

http://www.iisd.ca/linkages/un/youth.html

The World Wide Web is a project that many people around the world are using to exchange information in new and exciting ways over the Internet.

VOICES OF YOUTH
1995

Speak your mind at the World Summit for Social Development

You can make a difference.

To visit the site you should have a connection to the Internet and WWW browser software like Netscape, Mosaic, Lynx or Cello.
Through the WWW site, you can send your comments to the world leaders and also read what other young people are saying, as well as obtain more in-depth material on the Summit.

Speak Your Mind

Be creative and speak from the heart. What kind of solution to social problems do you propose? Here are some questions that you might consider responding to:

- Why are there more poor people than ever before when for the first time in history everyone's basic needs could be met?
- Do you know what it is like to grow up homeless or without access to schooling, health care or safe drinking water?
- What happens if you have to drop out of school to help support your family?
- Why do differences in skin colour, language, religion or gender often lead people to mistreat each other?
- How can we better take care of the environment?
- How would you deal with all of these problems?

Individuals are welcome to send in their views, but classes and youth groups as a whole.are also invited to send messages. Please keep your message to about 250 words, plus the following information:

Your name:
Your age (under 25 please):
Your school:
Your e-mail address:
Your gender:
What country are you from:

***Messages can be sent until 12 March 1995.*

How To Read What You And Others Have Written

WWW

Visit the Linkages World Wide Web site, home of the UN "Voices of Youth" project:

http://www.iisd.ca/linkages/un/youth.html

GOPHER

Postings of young people will also be available at the following gopher site:

gopher://gopher.igc.apc.org

A SPECIAL THANKS FROM THE UNITED NATIONS

Thank you for exercising your right to participate and helping to build a better future. If you should have any questions about this project or ways that you can contribute, send your message to unicef@igc.apc.org.

13102 Weather Vane Way, Herndon, VA 22071-2944 USA ISSN 1070-2954

The Power of the Net

The Living Curriculum

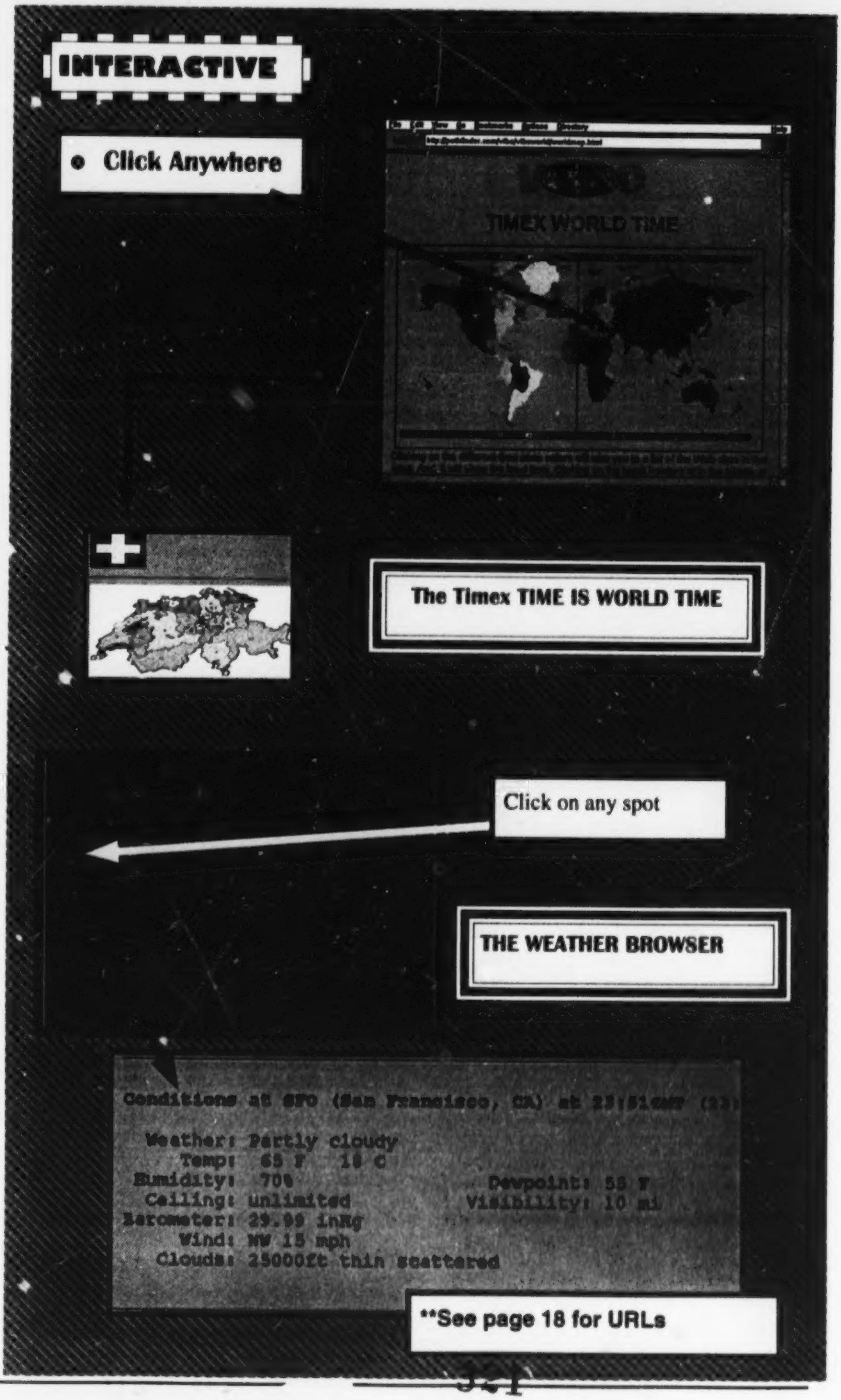
We live at a time in history when information travels fast. In seconds, images taken from satellites orbiting the earth are relayed back to earth receiving stations and in nanoseconds transmitted across vast global distances to government analysts, scientists, and even school children sitting in front of a workstation.

The days of the pony express are long gone but even so it is remarkable how far we've come in that relatively short interval of time. Many are now suggesting quite openly that the days of the postal service are numbered and that soon all our messages and documents will be transmitted electronically. Others predict the end of the telephone service which will become just another facet of an integrated digital internetworked communications environment.

For those of us who are over the age of twenty-five, these technological advances are almost mind-boggling. However, for the young netsurfers what is mind-boggling is that their parents used slide rules [how quaint] and studied science using textbooks. [how boring]

The times they are a-changed and things that we grew up with and used in our schoolhouses will soon be extinct. In these next few pages, we will profile some new net learning products to show new ways of presentation and a whole new world of interactivity.

So Welcome to the NTN gallery of THE LIVING CURRICULUM



INTERACTIVE

● Click Anywhere

The Timex TIME IS WORLD TIME

Click on any spot

THE WEATHER BROWSER

```
Conditions at SFO (San Francisco, CA) at 23:51GMT (23:

  Weather: Partly cloudy
     Temp:  65 F   18 C
 Humidity:  70%                     Dewpoint: 55 F
  Ceiling: unlimited              Visibility: 10 mi
Barometer: 29.99 inHg
     Wind: NW 15 mph
   Clouds: 25000ft thin scattered
```

**See page 18 for URLs

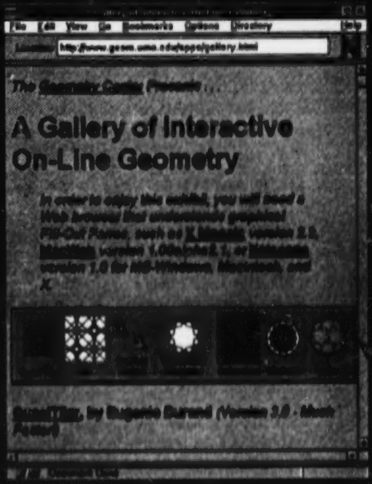
NetTeach News

The Power of the Net

The Learning Experience

**See page 18 for URLs

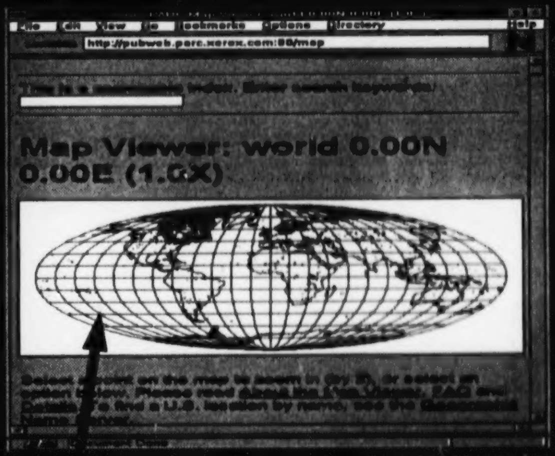
INTERACTIVE


File Edit View Go Bookmarks Options Directory Help

http://www.geom.umn.edu/apps/gallery.html

A Gallery of Interactive On-Line Geometry

A Gallery of Interactive On-Line Geometry

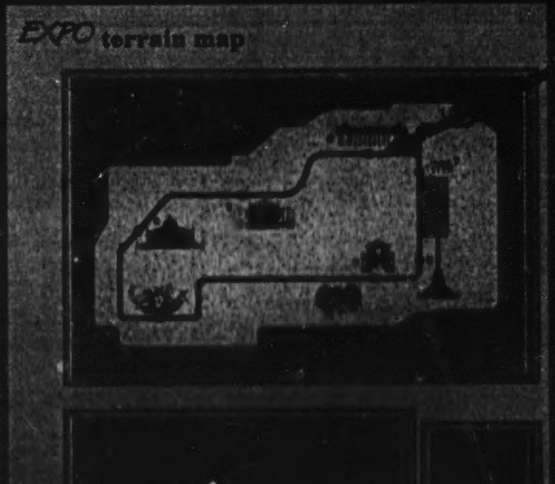

File Edit View Go Bookmarks Options Directory Help

http://pubweb.parc.xerox.com:80/map

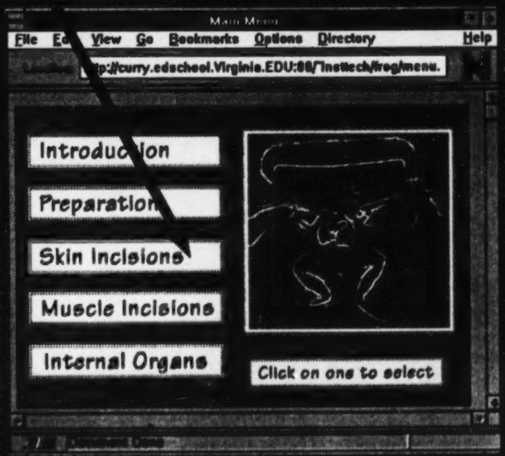
Map Viewer: world 0.00N 0.00E (1.0X)

XEROX Parc Map Viewer

CLICK


EXPO terrain map

THE EXPO


Main Menu
File Edit View Go Bookmarks Options Directory Help
Introduction
Preparation
Skin Incisions
Muscle Incisions
Internal Organs
Click on one to select

p://curry.edschool.Virginia.EDU:80/insttech/frog/menu.

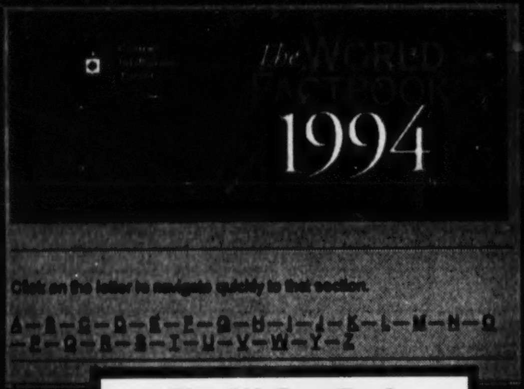
The Interactive Frog Dissection

NetTeach News

The Power of the Net

The Living Curriculum

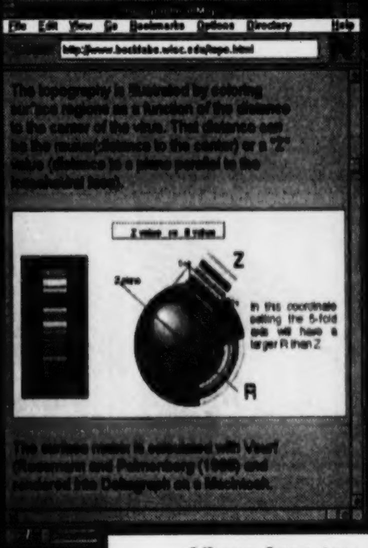
CURRENT


The WORLD FACTBOOK
1994

Click on the letter to navigate quickly to that section.

A – B – C – D – E – F – G – H – I – J – K – L – M – N – O – P – Q – R – S – T – U – V – W – Y – Z

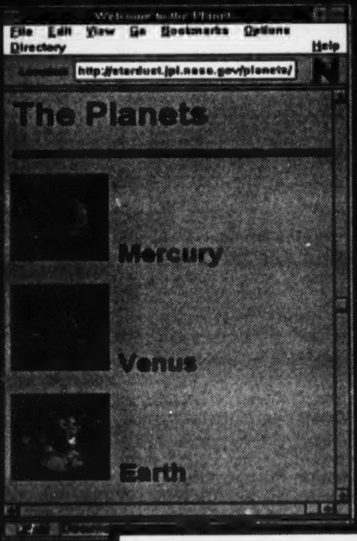
The CIA Fact Book


File Edit View Go Bookmarks Options Directory Help
Z value vs R value
Z
R
In this coordinate setting the 5-fold axis will have a larger R than Z

http://www.bocklabs.wisc.edu/topo.html

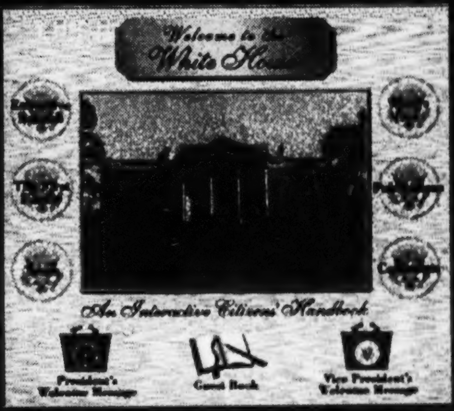
The topography is illustrated by coloring surface regions as a function of the distance to the center of the virus. That distance can be the radius(distance to the center) or a "Z" value (distance to a plane parallel to the icosahedral face).

Virus Images


Welcome to the Planets
File Edit View Go Bookmarks Options Directory Help
Location:
The Planets
Mercury
Venus
Earth

http://stardust.jpl.nasa.gov/planets/

Welcome to the Planets


Welcome to the White House
An Interactive Citizens' Handbook
President's Welcome Message
Guest Book
Vice President's Welcome Message

The White House Page

**See page 18 for URLs

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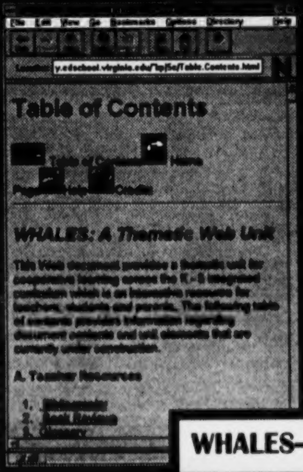
NetTeach News

The Power of the Net

The Learning Experience

ENGAGING

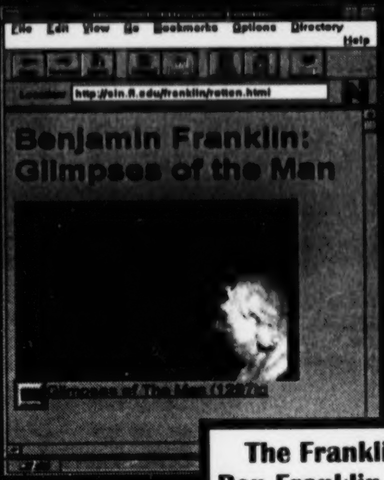


y.edschool.virginia.edu/~tp/5e/Table.Contents.html

Table of Contents

WHALES: A Thematic Web Unit

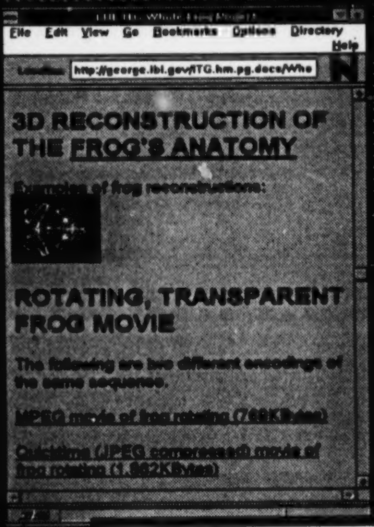
WHALES—A THEMATIC UNIT



http://sln.fi.edu/franklin/rotten.html

Benjamin Franklin: Glimpses of the Man

The Franklin Museum—Ben Franklin Virtual Exhibit



http://george.lbl.gov/ITG.hm.pg.docs/Who

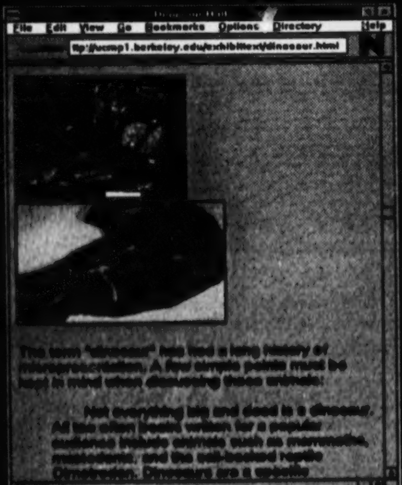
3D RECONSTRUCTION OF THE FROG'S ANATOMY

Examples of frog reconstructions:

ROTATING, TRANSPARENT FROG MOVIE

The following are two different encodings of the same sequence.

LBL ITG Interactive 3-D Frog Dissection



ftp://ucmp1.berkeley.edu/exhibittext/dinosaur.html

Dinosaur Hall

**See page 18 for URLs

A Guide to Federal Technology Resources on The Internet

A Guide to Federal Laboratories and Technology Related Resources on the Internet by Mary Stevanusof the Technology Transfer Information Center, NAL/USDA is now available on the National Agricultural Library Gopher at **gopher.nalusda.gov** - Under /NAL Information Centers/Technology Transfer Information Center, /Internet Federal Laboratory Guide.

The guide provides information on over 60 valuable Internet sites including information about:

- ⇒ Technology transfer
- ⇒ Research and development
- ⇒ Public and private sector R&D initiatives and resources
- ⇒ Technical expertise and resources
- ⇒ Technologies available for licensing or cooperative R&D

National Laboratories, such as Sandia and Los Alamos; NASA Laboratories and Research Centers, as well as major research facilities from NOAA, EPA, DOT, DOE, DOD, and other federal agencies are included in the guide.

The guide will be updated on a quarterly basis to include new internet resources, as well as new technologies being employed to disseminate information - www, wais, mosaic, and others.

Each entry provides the source's name and internet address, various means of access, along with more detailed information and examples of the types of resources available at each site.

Comments are welcome and should be send to Mary Stevanus at

ttic@nalusda.gov.

Latest Issue of the Journal of Student Research Now Available

The National Student Research Center (NSRC) at Mandeville Middle School in Mandeville, Louisiana recently released the latest issues of the electronic journal of student research entitled: THE E-JOURNAL OF STUDENT RESEARCH. Several databases of student research in all areas of the curriculum are also available. The research abstracts are written by students in grades K - 12 from across the USA and around the world.

In addition, program development materials are now available for teachers who are interested in utilizing the student research and publication process in their classrooms.

The program development materials, e-journals and databases are housed in the NSRC's Electronic Library located on the National Public Telecomputing Network's Academy One. Telnet to nptn.org and sign on as VISITOR. Then select THE SCIENCE CENTER. Then select NATIONAL STUDENT RESEARCH CENTER for access to the E-Library. Users can then highlight the program development materials, e-journals, or databases for perusal before downloading.

The Electronic Library is also housed on the Technology in Education Research Center (TERC)'s The Hub. Users should gopher to hub.terc.edu to access The Hub or following the menu path: GOPHERS AROUND THE WORLD \ NORTH AMERICA \ USA \ MASSACHUSETTS \ THE HUB. Once in, select RESOURCES FOR MATH AND SCIENCE EDUCATION. Then select ELECTRONIC JOURNALS AND EWSLETTERS. Then select NATIONAL STUDENT RESEARCH CENTER ELECTRONIC LIBRARY to view e-journals, databases, and program development materials before downloading.

Students interested in publishing abstracts of exemplary research projects which follow one of the scientific methods in the E-Journal or databases may submit them for review to John I. Swang, Ph.D. of the National Student Research Center at the following address:

nsrcmms@aol.com

THE VILLAGE GUIDE

MARCH 1995

9-12 March **The European Council of International Schools** is holding its next ESL conference in Amsterdam, The Netherlands. Speakers include: Mario Rinvolucri, Catherine Walter, Jane Ravell, Tim Bowen; Bernadette van Houten For more information and details of how to register, contact one of the following: e-mail: Virginia Weegenaar <virginia@esl.xs4all.nl> ; Snail mail: Jenny Schuitemaker AFCENT International School, Ferdinand Bolstraat 1, 6445 EE Brunssum, The Netherlands

22-25 March **SITE'95 6th International Conferene** in San Antonio, Texas. (SITE, formerly STATE). For more information send a message to: SITE 95/AACE; P.O. Box 2966, Charlottesville, VA 22902 USA; tel:+1 804-973-3987; fax: +1 804-978-7449; e-mail: <AACE@virginia.edu>

APRIL 1995

1-4 April **Annual Conference and Exposition of the National School Boards Association** San Francisco, CA. Workshops, topic roundtables and lectures on the critical issues facing school managers today. For more information call 1-800-950-6722 or write NSBA, MArketing Dept., 1680 Duke Street, Alexandria, VA 22314.

7-8 April. **Annual Technology Conference of the Virginia Society for Technology in Education.** Wintergreen Convention Center. Wintergreen, Virginia. For more information contact: Daniel Arkin, Executive Director, VSTE, University of Virginia Curry School of Education, 405 Emmet Street, 287 Ruffner Hall, Charlottesville, VA 22903. +1 804-320-3424.

10-13 April. **Internetworld 95** . Sponsored by Mecklermedia. For information call 1-800-632-5537 or +1 203-226-6967 or send e-mail to: iwconf@mecklermedia.com.

10-14 April **WWW'95, Third International World-Wide Web Conference, Technology, Tools, and Applications.** Darmstadt, Germany. For more information see URL: http://www.igd.fhg.de/www/www95/www95.html or send an e-mail inquiry to: Roland Holzapfel at < holzapfel@igd.fhg.de>

29 April to 2 May. **AusWeb95** - Ballina Beach Resort, Ballina, Far North Coast of New South Wales, Australia. The conference email address is AusWeb95@scu.edu.au The conference URL is http://www.scu.edu.au/ausweb95/ For further information on AusWeb95: Norsearch, the university conference organisers: Sheridan Daley, Email: mailto:sdaley@scu.edu.au ;+61 66 20 3922 Fax: +61 66 22 1954/ Stewart Hase, Email: mailto:shase@scu.edu.au +61 66 20 3922 Fax: +61 66 22 1954

MAY 1995

22-24 May. **THIRD ANNUAL CONFERENCE ON RURAL DATAFICATION: Routing the Information Highway Down Main Street** in Indianapolis, IN. Rhana Jacot / CICNet, Inc. / 2901 Hubbard Dr. / Ann Arbor, MI 48105 Tel: +1 (313) 998-6521 (voice); +1 (313) 998-6105 (fax) http://www.cic.net/~rjacot/rjacot.html

JUNE 1995

17-19 June **Emerging Technologies— Lifelong Learning, NECC'95.** Baltimore, Maryland. For information contact: NECC'95 , ISTE, 1787 Agate Street, Eugene, OR 97403-1923. Tel: +1 503-346-3537, fax +1 503-346-3509e-mail : PDKATZ@oregon.uoregon.edu.

27-29 June. **The first Women in Technology Conference,** sponsored by the International Network of Women in Technology, will be held at the Santa Clara Convention Center, Santa Clara, CA. The keynote speaker will be Gloria Steinem, the author, editor, lecturer, and feminist organizer. The conference aims to celebrate and acknowledge the accomplishmentsof women in technology, expand opportunities for women in technology,and identify successful strategies to career tracks, among other objectives. Further information on the conference is available by calling +1 (818) 990-1987, via e-mail from witi@crl.com, or by writing WIT Conference, 4641 Burnet Ave., Sherman Oaks, CA 91403.

28-30 June. **INET'95 - Internet Society's 1995 International Networking Conference** in Honolulu, Hawaii. INET'95, the 5th Annual Conference of the Internet Society will focus on The Internet: Towards Global Informatiion Infrastructure. It will be held 27-30 June 1995 at the Sheraton Waikiki Hotel in Honolulu, Hawaii. This year there will be a whole track devoted to EDUCATION (K-12 developments). Kathy Rutkowski, the Editor of this newsletter, is a co-leader of the Education Track with Michelle Huston of Australia. This is an opportunity for educators to meet with the technologists, and share problems and seek solutions. For more information:
URLs: http://www.isoc.org/inet/inet95.html
Mail: inet95@isoc.org (information only)
Mail: inet-registration@isoc.org
Tel: +1-703-648-988, +1 800-468-9507 (in USA and Canada only), Fax: +1 703-648-9887
Post: Internet Society Secretariat
12020 Sunrise Valley Drive, Suite 270
Reston, VA 22091 USA

JULY 1995

8 July. **Open Your Classroom to the World,** the Summer Telecomputing Conference of the Virginia Society for Technology in Education-SIG_TEL group.in Charlottesville, VA. For more information contact: Daniel Arkin, Attn.SIG/TEL, Virginia Society for Technology in Education7337 Longview Dr. Richmond, VA 23225

URL KEY FOR WEB LEARNING GALLERY

PAGE 12
TIMEX TIME IS WORLD TIME
URL:http://pathfinder.com/vibe/vibeworld/worldmap.html

Interactive Weather Browser
URL:http://rs560.cl.msu.edu/weather/interactive.html

PAGE 13

Xerox PARC Map Viewer
URL:Interactive Frog Dissection
http://curry.edschool.Virginia.EDU:80/~insttech/frog/menu.html

A Gallery of Interactive On-Line Geometry
URL:http://www.geom.umn.edu/apps/gallery.html

EXPO
URL:http://sunsite.unc.edu/expo/expo/expo_map.html

Interactive Frog Dissection
URL:http://curry.edschool.Virginia.EDU:80/~insttech/frog/menu.html

PAGE 14

CIA Fact Book 1994
URL:http://www.ic.gov/94fact/fb94toc/fb94toc.html

Virus Images
URL:http://www.bocklabs.wisc.edu/
Topographical Maps-Virus
URL:http://www.bocklabs.wisc.edu/topo.html

White House
URL: http://www.whitehouse.gov

Welcome to the Planets
URL:http://stardust.jpl.nasa.gov/planets/

PAGE 15
Whales
URL:http://curry.edschool.virginia.edu/~kpj5e/Table.Contents.html

Franklin Institute of Virtual Science
URL:http://sln.fi.edu/
Benjamin Franklin
URL:http://sln.fi.edu/franklin/rotten.html

LBL ITG Whole Frog Project]
http://george.lbl.gov/ITG.hm.pg.docs/Whole.Frog/Whole.Frog.html

Dinosaur Hall
URL: http://ucmp1.berkeley.edu/exhibittext/dinosaur.html

For more information about The ARMADILLO GOPHER AND THE TEXTBOOK WAIVER. Follow the gopher map OTHER GOPHERS/NORTH AMERICA/USA/TEXAS/ARMADILLO. For Netsurfers you can point to URL: http://chico.rice.edu/armadillo/Rice/k12resources.html.

NETTEACH NEWS is the chosen newsletter for pioneer networking educators worldwide. It provides a forum for the exchange of information about how advanced networking technologies are changing society, and in particular the way we teach,learn, and deal with one another. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to emerging global living learning villages.

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Connecting Learners Around The Globe

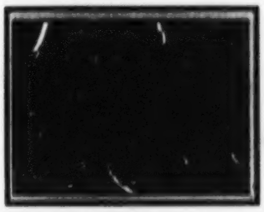
NetTeach News

MARCH 1995 VOLUME TWO, NUMBER TEN

Critical First Steps In Creating [illegible] Learning Systems

Something to Ponder —

"Dynamical systems are sensitive and nonlinear and unpredictable in detail because they are open, either to "outside" influences or to their own subtle internal fluctuations. ....dynamical systems imply a holism in which everything influences or potentially influences, everything else—-because everything is in some sense constantly interacting with everything else. At any moment, the feedback in a dynamical system may amplify some unsuspected "external" or "internal" influence, displaying this holistic wholeness." *Fractals, The Patterns of Chaos* by John Briggs . Simon & Schuster, 1992, New York.



The Elastic Fractal
URL:http://spanky.triumf.ca:80/

Taking A First Step

Many civic leaders, educators and parents of school age children are asking what is involved in the effort to bring internetworking technologies to learners in their communities, schools, or in their homes. The questions most frequently raised concern critical details such as costs, hardware/ software requirements, training and user support, access and connectivity, and legal, policy and regulatory requirements. These are all important categories of questions, and should be asked and the answers researched thoroughly. However, the questions typically not raised-concerning the processes and interrelationships that are essential to genuine learning are ultimately those that will determine success.

All too many of these grassroot efforts to connect schools to the Internet reflect a high level of enthusiasm on the part of the participants that is absolutely marvellous-but unfortunately there is often little appreciation of the critical elements involved in a successful transformation of a school or any learning organization. Many who are initiating these efforts are parents who are mainly concerned with demonstrating the power of the technology to educators in the hope that educators will become as enthusiastic in promoting its use. Their efforts can be effective but only if incorporated in a long-term strategy for change.

Charting A Course

The deployment of computers into US schools during the 1970s is well documented and reveals that the mere deployment of a technology does not necessarily result in a genuine integration of that technology into the system of learning. Moreover, the mere adoption of a technology does not lead to an adaptation of that technology that supports new kinds of learning. ❶

Real change requires charting a course. This not only involves declaring a destination and choosing a mode of transport but also involves a knowledge of where you are and who you are.

It is true that the journey of a thousand miles begins with one step but it is also true that if you don't know where you want to go, it's most likely you won't get there and even if you do get there by chance it's unlikely you'll know you've arrived. Moreover, before you can go somewhere it helps to know where you are in relation to there and to know the physical and institutional constraints that will impact on how you get from here to there.

Creative Tension

System theorist and author of The Fifth Discipline, Peter M. Senge suggests the juxtaposition of vision (what we want) and a clear picture of current reality (where we are relative to what we want) generates "creative tension": a force to bring them together. ❷

(Continued on page 3)

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A Word from the Editor

Hey Newt, What About A Contract With American Leaners?

Recently, I was in the West Coast and en route from the airport to my hotel was amazed that the Cab radio was tuned into live audio coverage of the O.J. Simpson Trial. You would think that floods and bad weather would be the stuff of cabbie chat but not so, instead the conversation turned to the L.A. police, the Dream Defense Team, and Marcia Clark. In the Washington, D.C. area, it is almost as hard NOT to hear about the much-ballyhooed "Contract With America" Newt Gingrich, the Republicans, the Democrats, and the frenetic activity on the Hill

The story that is unfolding in that L.A. Superior Court room appears to be one of a deep human tragedy. However, the story that is unfolding in the US Congress is in some ways far more disturbing because what is involved is not the demise of an individual or the brutal death of two innocent people but the demise of a nation and the unnecessary attack on a generation of innocents.

My heart goes out to the families of murder victims, Nicole Brown-Simpson and Ronald Goldman, and also to O.J. Simpson who regardless of his innocence or guilt now bears something far worse than death—a living hell. However, I feel little sympathy and major anger towards elected leaders who choose to deceive, to deny, and to turn their backs on those who are in most need of their help.

At least, the legal system in L.A. is working. To those observing the trial, at any given time, it may seem that one side has better advantage over the other. However, in the final analysis, twelve Americans citizens will make an impartial decision based on the merits of the information they have received and their own best judgment. Some or many of us may disagree with their ultimate decision but we all must concede it is a decision by citizens of Los Angeles.

In the hallowed halls of the US Congress, the system is spiralling out of control. Yes, it is true, people elected this Congress to represent them but the sad fact is this Congress seems in tune only with itself. The "Contract With America" is beginning to look like a sham.

This Congress is proposing the deepest federal cuts for public education since 1981. Already schools and school systems are straining to provide learners with the facilities and resources they not only deserve but should be guaranteed. Now this new Congress is calling for further cuts that will likely impact hardest on America's urban schools. These policies will effectively create a learning apartheid.

The same man that would resurrect orphanages to supposedly "save" children is now leading an effort to cut school lunches, cut out programs designed to reduce violence and drugs in the school, and leave major public school systems near collapse and with little hope of recovery.

Is this what Speaker Gingrich really wants? Is this what Americans want? Do we want young teenagers walking our city streets ignorant, angry, and without any hope of a meaningful job? Do we want a genuine class society and a second-rate and much beleaguered public education system ? Do we want children to be hungry and deprived of learning opportunities ? Have we sunk so low as a nation and a people that we don't care about those less fortunate, or those who can't possibly defend themselves?

Yes, we need a contract, and if the elected representatives on the Hill are serious, it's time for them to display creative leadership and to pledge themselves to the rising generations of Americans. Take out a Contract with America's learners—they are our nation's future, and help visionary educators create a new more viable public education system that acknowledges the creativity of all children and serves their learning interests equally. Deny any child and the America that our forefathers envisioned will be doomed.

Editor: Kathy Rutkowski

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FIRST STEPS (Continued from page 1)

Creative tension is truly a strategic blueprint for change. Without such a blueprint the chances for success are minimal at best.

A Vision of Change

As one visits existing cybernetic learning colonies around the globe the most striking similarity observed is a clear and concise common redefinition of learning. The vision of learning in these colonies is radically different than the reality of learning in most conventional schools..

In these cybernetic colonies, learning is viewed as a lifetime, knowledge-building collaboratory process. Teachers and students are co-learners who use this technology to create global learning experiences with other students and teachers around the world. Research is the foremost activity in these new learning organizations and both student and teacher researchers use the technology to conduct their research and also to disseminate their finished knowledge products with the rest of the learning world.

Assessing Real Capabilities

Schools are complex organizations. Typically they are assessed using accumulative measures of component parts such as :how many students have learning disorders, how many speak English as a second language, how many teachers have advanced certification, how many students are merit scholars, how many students are drops outs, and how many students are at-risk.

Rarely is there an attempt to consider schools as learning systems and to seriously evaluate how component parts interact over time and to what effect. Few studies are conducted that analyse the critical dynamic processes and interrelationships.

However, in determining a blueprint for change, it is less important to measure accumulative statistics and more important to understand key interrelationships and the major system processes..

Key Interrelationships

The key relationships in a school are: management and administration, professional and support staff, learners, and parents/ community. When a learning system is working well all these component parts are effectively working together for the common purpose of learning. In the cybernetic learning system these these key populations interplay to create empowering learning environments.

Empowerment

Without question, *empowerment is the major goal of the cybernetic learning system.* Managers need to use networks to control empowered learners and an empowered professional staff. Teachers and school librarians use networks to communicate more effectively with parents and managers as well as to conduct research with colleagues from around the world. Learners use networks to communicate with other learners and mentors from outside the school, and also to conduct research and to publish knowledge and creative work.

Key Processes

The most obvious processes in an education system are: management, teaching, learning, and support. Communication is also an integral process

In traditional schools, management tends to be more centralized and top down; teaching tends to be more unidirectional and authorative; learning tends to be mostlypassive, and support tends to be primarily custodial or secretarial. Relationships are very linear and the channels of communication tightly controlled and hierarchial.

In cybernetic learning systems, management tends to be more decentralized and focused on controlling empowered workers and learners, teaching tends to be more collaborative, mentoring and research-oriented, learning tends to be more constructionist, collaborative, and knowledge-building, and technical training and user support is primary. The communication system is more open and involves new channels with populations outside the school and school system.

A Coalition for Change

One person can make a tremendous difference to an organization in any given point in time but sustained growth involves a collective effort. Mostly it requires a solid coalition that represents the interests of the varying populations in the system and has knowledge of the critical processes.

In schools, a coalition of management, professional staff, parents/community, and learners would be desirable for introducing and implementing change. This coalition can not alone work together to create an acceptable and attainable collective vision but can also serve to reveal areas of tension that would be expected in any system undergoing transformation.

Critical First Steps

In conclusion, before any specific actions are taken to introduce networking to a school or school district, it is important to develop a long-term strategic plan that not only introduces the technology but paves the way for a total integration and useful adaptations.

This strategic plan must involve the following,

- *A clearly articulated vision of the change.desired*
- *An accurate assessment of system processes and interrelationships as they exist currently and as they evolve over the course of change.*

Further, the most effective strategic plans will likely be those that are developed by a coalition of management, professional staff, learners, and parent/community representatives who agree on the need for, and are committed to implementing change.

References:

●**Computers in American Schools 1992: An Overview.** Ronald Anderson (Ed) © 1194 U. of Michigan

●**The Fifth Discipline. The Art & Practice of The Learning Organization** by Peter M. Senge 1990; Doubleday

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NetTeach News

TO BOLDLY GO WHERE FEW

New Learning Colonies

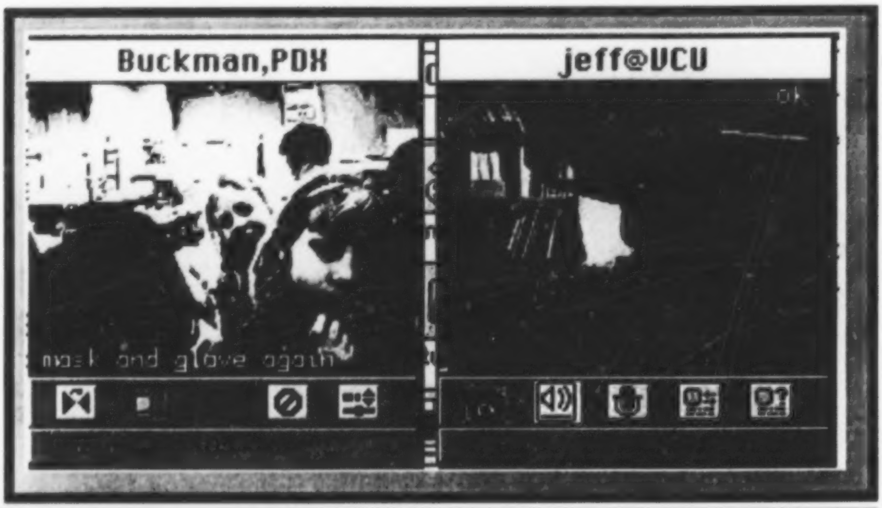
Today, around the globe, there are schools and classrooms where learning is happening "differently" than in most other schools and classrooms. These are places where students are using networking technology to "boldly go where few learners have gone before." They and their teachers are exploring new frontiers of learning and challenging old notions of "school." In the process, they are sowing the seeds for new virtual and global schools of learning.

The General Characteristiics

These colonies vary in size, in the age and grade levels of student participants, in the geographic location of participants, in resource endowment, and in the technological capability. All colonies, however, share a common vision of learning. This vision involves the integration of internetworking technology into all processes of the learning system and suggest learning as an active collaborative, lifelong process rather than definable completion of task.

Technological Landscapes

The colonies vary in their degree of internetworking complexity. Some of the sites are utilizing very advanced technologies that are not even widely available or in use in the corporate internetworking community such as visualization tools, collaboratory notebooks, and Cu-SEE-Me conferencing technologies. Most of these colonies, however, have limited access to the Internet and are primarily using e-mail capabilities with limited ftp, telnet capabilities and limited browsers such as lynx .



Source: ***The Buckman Elementary School Web Server, The Cu See-Me Project Gallery*** **URL: http://buckman.pps.k12.or.us/cuseeme/cuseeme.html**
Jeff Price, a professor and research at the Virginia Commonwealth University demonstrates his virtual reality mask and glove to student at Buckman using CU SEE-ME technology.

Some of these colonies maintain their own servers, routers and host multiple users. Other sites are "renting" space on the machines of others or are using public networks with gateways to the Internet. All the colonies are adapting the technology and using it to promote better individual and institutional learning.

In the aggregate, one can find most of the current killer internetworking applications in use.: such as:

- E-Mail
- Collaboratory
- Visualization
- Conferencing
- Browsing
- Modeling
- Virtual
- Telnet/Ftp
- Firewall
- Authoring

In the pages that follow, we will visit three colonies—The Buckman, the COVIS, and The Chatback colonies—and consider some of their unique applications of networking technology.

The Buckman Elementary School, Room 100

Buckman Elementary School, Room 100 is a mixed age K, 1,2 elementary school classroom located in the Buckman Elementary School in Portland, Oregon.

The children in Room 100 in the Buckman School are young in age but already they are global researchers, publishers,

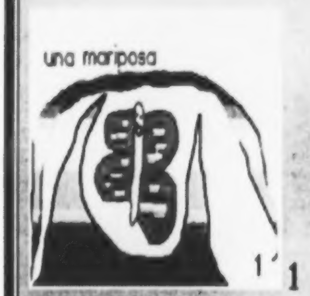
LEARNERS HAVE GONE BEFORE

and performers. With their teachers, they are reaching out to the world outside the walls of the Buckman school and interacting with such experts as Borre Ludvigsen, a professor of Educational Technology in Norway, Jeff Price, a professor and researcher in the field of computer graphics at the Virginia Commonwealth University, and Craig Hickman, the creator of Kid Pix. What is most remarkable is that they interacted with these men real time using CU-SeeMe technology—a real time conferencing technology developed by computer scientists at Cornell University..

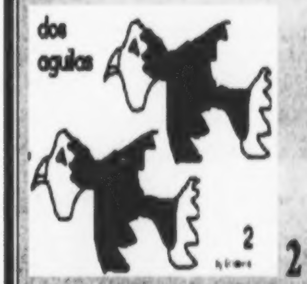
The children are also working on collaborative projects based on Mathmagic math problems created by teachers and students around the world and stored on a gopher server located at Swarthmore University. (See URL:gopher://forum.swarthmore.edu:3000/1forum. and ibelow)

The children and their teachers have become global publishers and are using html authoring language to put some of their research and original projects into web pages.

Last summer teachers from the Buckman School took part in an elementary science teaches institute sponsored by the Oregon Museum of Science and Industry and the Natiional Scnience Foundation. The teachers had the opportunity to connect via a modem to the Telescopes in Education program's telescope at the Mt. Wilson Observatory. Through the use of astronomy software and a modem the teachers could locate objects in the sky and direct the Mt. Wilson Telescope.to take an exposure. This image was transmitted to the remote computer and could be used in research, teaching, and publications.*



Una Mariposa, by Hannah



Dos Aguilas, by Gildren

Buckman Class 100 Global Artists

Class 100 put together a Spanish counting book using Kid Pix and Kid Pix Companion. The children used Kid Pix to create the pictures and to then record their voices reading their pages. The Buckman Spanish Counting Book can be viewed by anyone in the world with www browsing capability . It is located at URL: http://buckman.pps.k12.or.us/span

Buckman Class 100 Student Architects

(Source: URL: http://buckman.pps.k12.or.us/math/math.html)

To help solve the Math Magic problem, the children built a building using unit blocks and then solved the problems using their buildings to test their answers.

*(For more information about Telescope in Education . See URL: http://www.mtwilson.edu/tie/tie.html or write:
Mount Wilson Institute
TIE Program
Gilbert Clark -Director
P.O. Box 24
Mount Wilson, CA 91023, USA

For more info about Buckman Go to URL: *http://buckman.pps.k12.or.us/buckman.html*

SEEING WITH THE TOOLS OF SCIENTISTS

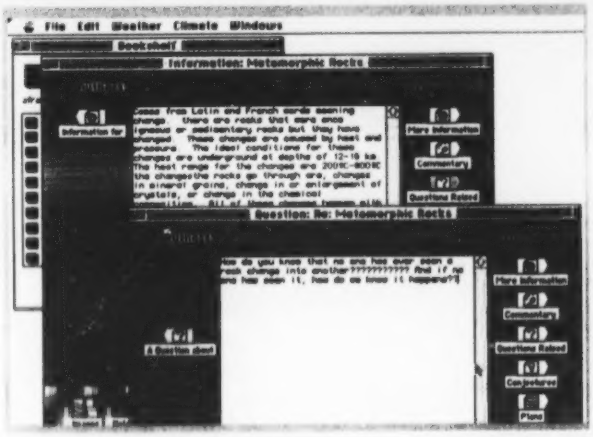
THE COVIS PROJECT COLONY

The Learning Through Collaborative Visualization (COVIS) learning colony is one of the most advanced technologically. COVIS students and teachers are using some of the most advanced software applications available such as Timbuktu Pro (screen sharing technology), cruiser (video conferencing), the callaboratory notebook, the weather visualizer, the weather graphics tool, the climate visualizer, and the greenhouse visualizer.

Through the use of these advanced technologies, students in schools are not just learning about science but actually "practicing" science. The participating students study atmospheric and environmental sciences through inquiry-based activities. They use the modified scientific visualization software to access data sets that are also used by actual scientists.

The students use various collaboration and communications tools to engage in both asynchronous and synchronous collaboration with students from other schools and experts from around the country. COVIS students and their teachers are disseminating their work by means of COVIS Classroom and student web pages. (See RL:http://www.covis.nwu.edu/Classroom/ClassroomHome.html)

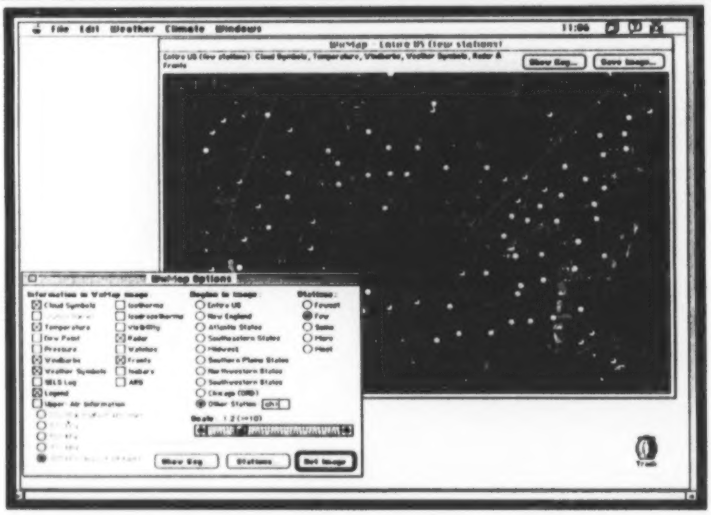
For more information contact:
COVIS
Attn: Susan Rand, Room 245
School of Edu & Social Policy
Northwestern University
2115 North Campus Drive
Evanston, IL 60208
Tel: +1 708-467-2226
Fax: +1 708-467-1930


File Edit Weather Climate Windows
Bookshelf
Information: Metamorphic Rocks
Information for
More Information
Commentary
Questions Raised
Question: Re: Metamorphic Rocks
A Question about
More Information
Commentary
Questions Raised
Conjectures
Plans

THE COVIS COLLABORATORY NOTEBOOK

The Collaboratory Notebook is a networked, multimedia tool that supports group work. Project-centered dialogue takes place in individual notebooks. The notebook pages also provide a scaffolding structure for learning and assessment.

(Source—URL:http://www.covis.nwu.edu/Software/Collaboratory_Notebook.html)


File Edit Weather Climate Windows
WxMap Options
Show Key...
Save Image...
Show Key
Stations
Get Image
Trash

THE COVIS WEATHER VISUALIZER

The Weather Visualizer provides a graphical front-end to real-time weather data. This tool supports student prediction and explanation.
SOURCE: URL:http://www.covis.nwu.edu/Software/WxVisualizer.html

LEARNING THROUGH GLOBAL COLLABORATIONS

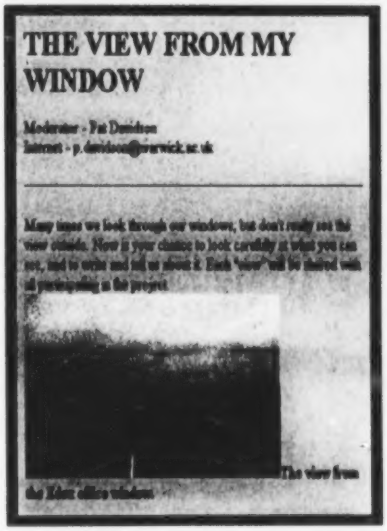
The Chatback Trust Colony

Most of the students who participate in the electronic projects of The Chatback Trust Foundation are children who have some mental or physical difficulty with communicating. Chatback was founded in 1987 by Tom Holloway.

Tom worked for IBM for twenty-five years and for two of those years was on loan to the UK National Council for Educational Technology and his special interest was considering access technology as a tool for children with special needs.

In 1987, CHATBACK provided email support to 100 schools primarily located in the UK. Today, there are now children participating from Estonia, Japan, Argentina, Russai, Slovakia, Slovenia, Canada, Siberia, and throughout the US and Western Europe.

CHATBACK International was established to link schools together through the Internet. Professor Bob Zenhausern of the Psychology Department of St. John's University in New York is directing this effort. Resources of St. John's are used to promote linguistic competence and self-esteem of groups of children with physical and mental handicaps.



THE VIEW FROM MY WINDOW

Moderator - Pat Davidson
Internet - p.davidson@warwick.ac.uk

Many times we look through our windows, but don't really see the view outside. Now is your chance to look carefully at what you can see, and to write and tell us about it. Each "view" will be shared with all participating in the project.

The view from the [illegible] office window

The UNIBASE system at St. John's is available as a resource center for databases, information services and also for interactive real-time conferences.

Each month, CHATBACK runs projects for these young learners such as:

- A View From My Window — children are invited to write about a view from their window
- Memories of 1944 — senior citizens share their reflections on life some fifty years ago
- Answers To A Far Star —children describe their lives to an imaginary visitor from another planet (a petit prince)

The projects are simple and the predominate technological application is e-mail but the impact on individual students and the globe is major. The technology is empowering these children with special needs and is also bringing generations and cultures together.

For more information about The Chatback Trust and Chatback International contact:

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Fax:+1 718-990-6705

Tom Holloway
The Chatback Trust

43 Bath Street
Royal Leamington Spa
Warwickshire, CV31 3AG
United Kingdom
Tel: +44 926-888333
Fax:+44 926 420204

The Chatback Home Page is located at URL:http://www.galviz.co.uk/chatback.html

Dear Dr. Janina Parafjerowicz,

My name is Rebecca Leonard, I am 10 years old, and I am interested in the Holocaust. I am interested because I am Jewish and I wanted to learn more about then. So I would like to know why were non-Jewish people put in concentration camps? Di you know any? And how old were you when this was going on?

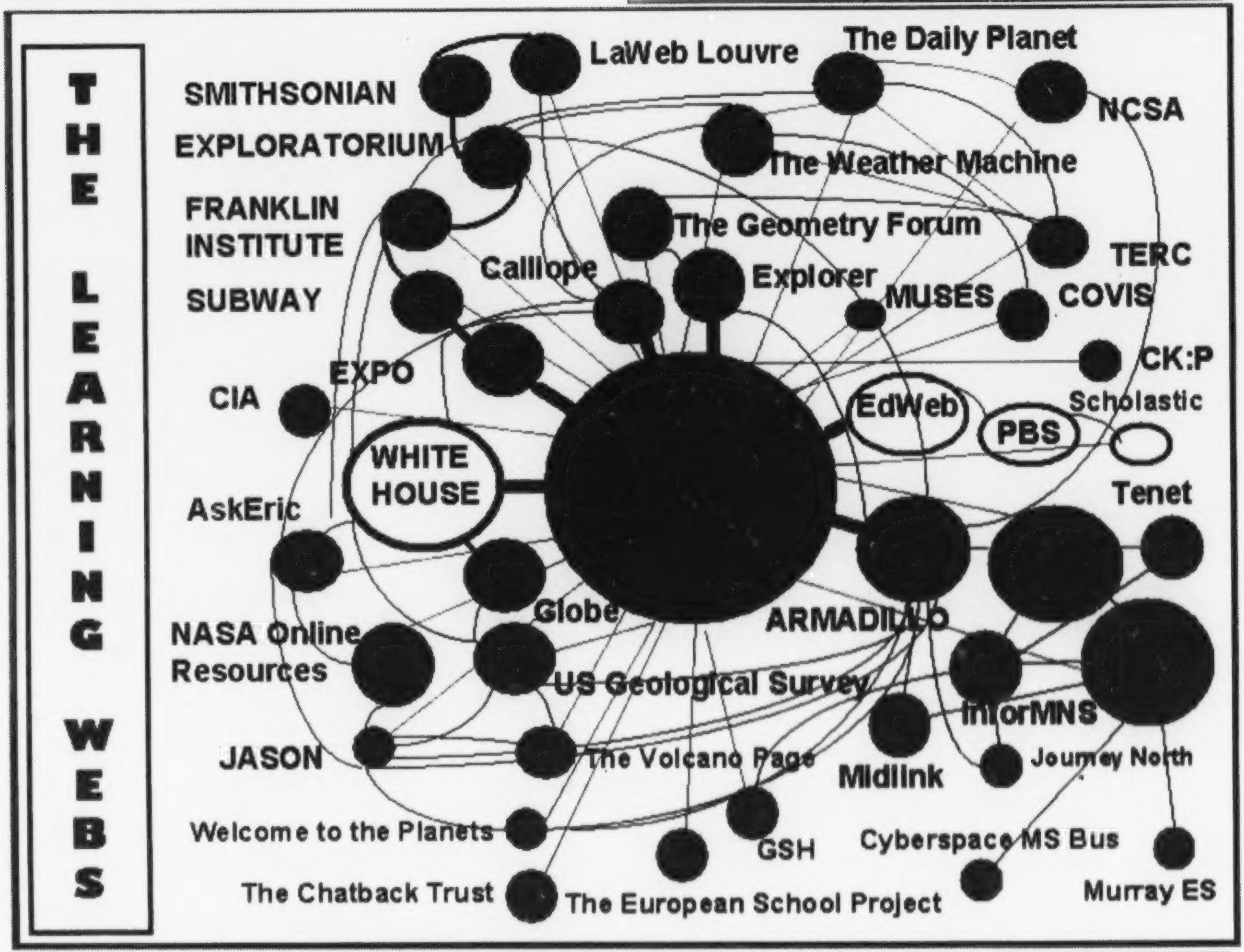
From Rebecca
The Nueva School
Hillsborough, CA

"I was 22 years old when I was sent to Auschwitz with all my family except my youngest son. In the 4 years of my captivity I lost all. Many died by shooting or starvation.

And many Poles were killed by the Russians who also wanted to destroy us or make us work for them. So many Polish people died. All should learn that it was not only Jews who suffered —all nations."

Dr. Janina Parafjanowicz
Auschwitz Survival

An Expanding Universe


THE LEARNING WEBS
SMITHSONIAN
LaWeb Louvre
The Daily Planet
NCSA
EXPLORATORIUM
The Weather Machine
FRANKLIN INSTITUTE
The Geometry Forum
TERC
Calliope
Explorer
MUSES
COVIS
SUBWAY
CK:P
EXPO
CIA
EdWeb
PBS
Scholastic
WHITE HOUSE
Tenet
AskEric
Globe
ARMADILLO
NASA Online Resources
US Geological Survey
InforMNS
JASON
The Volcano Page
Midlink
Journey North
Welcome to the Planets
GSH
Cyberspace MS Bus
The Chatback Trust
The European School Project
Murray ES

The world wide web is fast emerging as repository of K12 curriculum, research archives, research papers and original art and literary work, and teaching and learning aids. It is emerging as the global research matrix for all learners and as the prime distribution system for research materials and products The new K12 product producers are teachers and students from around the globe, corporations, government agencies, non-profit organizations, and interested and knowledgeable individuals. Here we offer a schematic of some of the major servers that are focusing on the needs of the K12 learning community.

EINET Galaxy http://galaxy.einet.net/galaxy.html
The Virtual Schoolhouse...http://sunsite.unc.edu/cisco/schoolhouse.html
Janice's Page http://k12.cnidr.org/janice_k12/k12menu.html
Yahoo's K-12 Links http://akebono.stanford.edu/yahoo/Education/K_12/
White House http://www.whitehouse.gov/
CIA http://www.ic.gov/
AskEric http://eryx.syr.edu/COWSHome.html
NASA Online Resources http://www.nasa.gov/nasa_online_education.html
JASON http://seawifs.gsfc.nasa.gov/scripts/JASON.html
Welcome to the Planets http://stardust.jpl.nasa.gov/planets/
The Globe Project http://globe.gov/globe/globe.html
The Global Schoolhouse http://k12.cnidr.org/gsh/gshwelcome.html
US Geological Survey http://info.er.usgs.gov/education/index.html
The Volcano World http://volcano.und.nodak.edu/
The Chatback Trust http://www.galviz.co.uk/chatback.html
The European School Project http://www.educ.uva.nl/ESP/Menu.html
Armadillo http://chico.rice.edu/armadillo/
Hot List http://toons.cc.ndsu.nodak.edu/~sackmann/k12.html
Web66 http://web66.coled.umn.edu/schools.html
Tenet http://www.tenet.edu:80/

InforMNs...http://www.informns.k12.mn.us/iir.html
Journey North...http://www.ties.k12.mn.us/~jnorth/
Cyberspace MS Bus http://www.scri.fsu.edu/~dennisl/school/school.html
Murray Es http://pen1.pen.k12.va.us:80/Anthology/Div/Albemarle/Schools/MurrayElem/
EDWEB http://k12.cnidr.org:90/
PBS http://www.pbs.org/learning/k12/resources/ptvresources.html
Scholatsic http://scholastic.com:2005/
Commmon Knowledge:Pittsburgh http://info.pps.pgh.pa.us/
TERC http://www.hub.terc.edu/
Calliope...http://calliope.ncsa.uiuc.edu/ILM/ILMHome.html
MUSES http://copernicus.bbn.com:70/1/testbed/muse
Explorer http://unite.tisl.ukans.edu/intro.html
The Geometry Forum http://forum.swarthmore.edu:80/
The Weather Machine gopher://wx.atmos.uiuc.edu/1
Covis http://www.covis.nwu.edu/
The Daily Planet http://www.atmos.uiuc.edu/
EXPO http://sunsite.unc.edu/expo/ticket_office.html
Subway http://ucmp1.berkeley.edu/subway.html
The Franklin Institute http://sln.fi.edu/
The Exploratorium http://www.exploratorium.edu/
The Smithsonian http://nmnhwww.si.edu/nmnhweb.html
La Web Louvre http://mistral.enst.fr/louvre/net/

[illegible]

NASA recently announced two more opportunities for K-12 classrooms to interact with NASA scientists, engineers and support staff. Two vibrant research projects will become available in early April through mid-May. Both projects will provide frequent updates about day-to-day activities to allow students a glimpse into the real world of modern research.

Background information is available on the Internet using the Web and Gopher. Students and teachers will be able to Email questions to the research teams and receive individual responses.

The TOPEX/Poseidon Online project

The Topex/Poseidon Project will be run from April 1 until mid-May of 1995. During these times, scientists, engineers, operations and support staff from the TOPEX/Poseidon project will make themselves available to classrooms using the Internet.

TOPEX/Poseidon is a cooperative project between the United States and France to develop and operate an advanced satellite system dedicated to observing the Earth's oceans. The mission provides global sea-level measurements with an unprecedented accuracy. The data from TOPEX/Poseidon are used to determine global ocean circulation and to understand how the oceans interact with the atmosphere. This understanding will improve our ability to predict global climate. Opportunities to analyze TOPEX/ Poseidon data, including the El Nino condition, will be provided.

The F-18 SRA Online Project

This project will be run during the month of April 1995. During this time, a group of engineers, test pilots and flight crew members will share their experiences in advancing the state-of-the-art in aeronautics. Working with a modified F-18 called the Systems Research Aircraft (SRA), this team is exploring a variety of technologies including actuators, fiber-optic sensors, flush airdata systems, inertial guidance algorithms, and advanced, open systems computer architectures. The SRA team is located at the NASA Dryden Flight Research Center in Edwards, California.

Location: http://quest.arc.nasa.gov/

Welcome to Quest!
Home of NASA's K-12 Internet Initiative

URL:http://quest.arc.nasa.gov

Subscription Information

Additional information about these projects will become available shortly before they start. To stay informed, send an Email message to:

listmanager@quest.arc.nasa.gov/

In the message body, write one or both of the following lines (do not include the words in parenthesis)::

subscribe updates-tpo (for information about TOPEX/Poseidon Online)

subscribe updates-sra (for information about F-18 SRA Online)

Within one day, you should receive a confirmation of your Email request. If you do not receive this confirmation, please send a second message to **marc@quest.arc.nasa.gov;** include your full Internet address in this message.

Both of these projects are intended to be useful for a wide range of grade levels.

Volunteer Help Sought

NASA is looking for interested volunteers to fill several categories of positions:

SMART FILTERS—people to help process incoming questions. In the past, both individuals or teachers leading a group of students have successfully acted as Smart Filters. Prerequisite skills include a familiarity with Email (including editing parts of messages) and an ability to read mail frequently (a minimum of three or four times per week).

ONLINE MODERATORS—people to lead online discussion. A few energetic teachers to invigorate the online conversation. An understanding of the culture of maillists or newsgroups would be helpful.

PROJECT EVALUATORS—people to help evaluate the project. Previous experience in meaningful educational evaluation is preferred.

If you are interested in participating in any of these roles, please send an email note to

marc@quest.arc.nasa.gov.

Please mention either TOPEX/Poseidon or F-18 SRA in your note.

These projects are part of the "Sharing NASA with our Classrooms" series. These projects are made possible by funding from the NASA Information Infrastructure Technology and Applications (IITA) program. IITA is part of the High Performance Computing and Communications program authorized by Federal legislation passed in December 1991.

NetTeach News

[illegible]

Discovery Communications (better known as The Discovery Channel and The Learning Channel) recently announced the launch of a pilot Internet site designed to help teachers, students, and their educational partners devise innovative uses of Discovery programming.

The DISCOVERY LEARNING COMMUNITY provides resources, relationships and collaborative tools to promote academic inquiry and knowledge building. The site is accessible via gopher and world wide web.

If you have a web browser, go to the web site at:

http://ericir.syr.edu/Discovery/

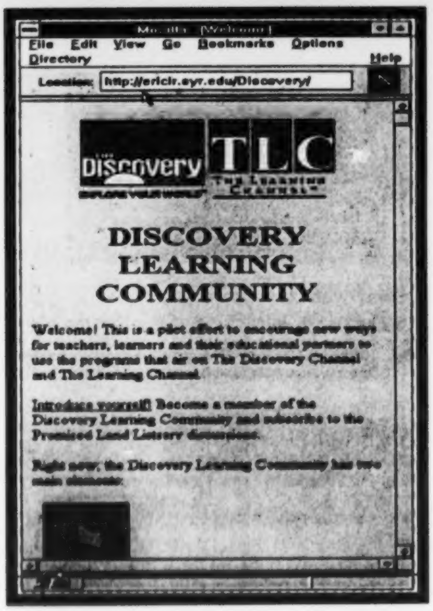
or go to our gopher site at: gopher://ericir.syr.edu:70/11/Ed/Discovery

To see the gopher site with a gopher browser, type: gopher ericir.syr.edu and then go to menu item 14. Other Education Networks and then go to menu item 7. Discovery Learning Community

The DISCOVERY LEARNING COMMUNITY features an extensive "focus" on THE PROMISED LAND, a five-hour documentary series about the migration of 5 million African Americans from the rural South to the urban North in the mid-20th Century which aired in late February and early March on ASSIGNMENT DISCOVERY.

The site also includes:

- an electronic version of Discovery Networks Educator Guide
- a free print publication for teachers interested in Discovery's programming
- Primary and Secondary source materials
- a wide range of mentors and experts
- an opportunity for teachers, learners and mentors to connect and collaborate.



DISCOVERY LEARNING COMMUNITY

Welcome! This is a pilot effort to encourage new ways for teachers, learners and their educational partners to use the programs that air on The Discovery Channel and The Learning Channel.

Introduce yourself! Become a member of the Discovery Learning Community and subscribe to the Promised Land Listserv discussions.

Right now, the Discovery Learning Community has two main elements:

URL: http://ericir.syr.edu/Discovery/

One of the site's key collaborative tools is a listserv, or e-mail discussion group, centered around The Promised Land. To subscribe send e-mail to: listserv@suvm.syr.edu

In the main body of the message write: subscribe PromiseL FirstName LastName

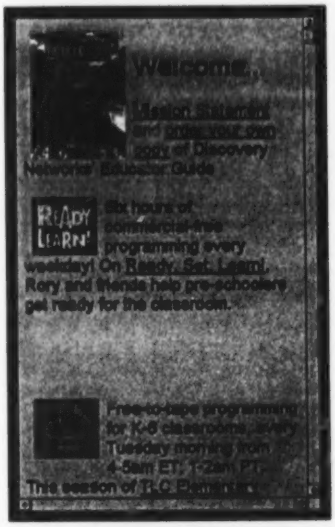
The Promised Land listserv discussion group already has participants from New Zealand and Germany, not to mention Mississippi, Chicago and points all over the US.

The listserv provides a platform for discussion of how the television series and related Internet site can be used to explore such themes as American History, Social Studies, Geography, Race Relations, Migration and Immigration, Civil Rights, Music and The Arts and many other issues important to considering US History and Contemporary America. It also provides conversation threads about interdisciplinary learning, project based learning, and other innovative approaches.

Some of the Discovery Learning Community elements are also available via America OnLine (keyword: dsc-ed for Discovery Education Area).

If you have any questions about this, send e-mail to:

educ@discovery.com



Mission Statement and order your own copy of Discovery Networks' Educator Guide

Six hours of commercial-free programming every weekday! On Ready, Set, Learn!, Rory and friends help pre-schoolers get ready for the classroom.

Free-to-tape programming for K-6 classrooms every Tuesday morning from 4-5am ET; 1-2am PT.

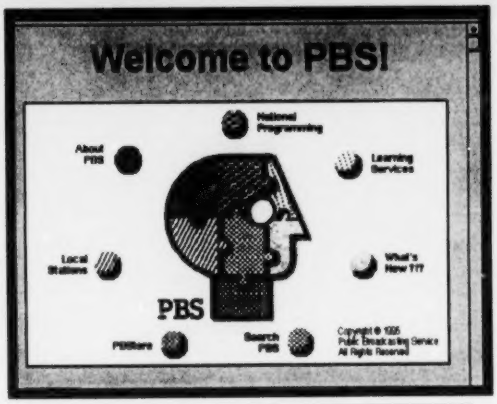
This season of TLC Elementary

DLC EDUCATION GUIDE
URL: hhttp://ericir.syr.edu/Discovery/EdGuide/Contents.html

[illegible]

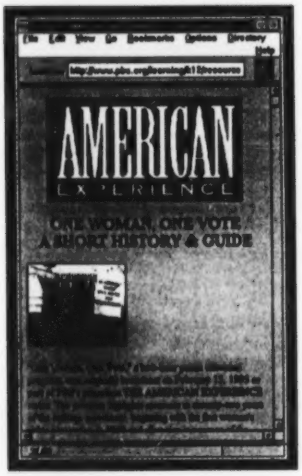
PBS, the home of Mr. Roger's Neighborhood, Sesame Street, and countless other exceptional learning programs recently unveiled it web pages, and as a result the world wide web has become a friendly place .

The home page not only contains an audio welcome message from Fred Rogers of the popular PBS series MISTER ROGERS' NEIGHBORHOOD but also information about PBS programs , links to PBS online learning projects and teaching aids, and links to PBS member stations, and other quality learning web sites.



URL:http://www.pbs.org

PBS President Ervin S. Duggan recently said, "Public television is a universal service, extending our service through the Internet, with its expanding reach, is a natural for us. Our new PBS World Wide Web 'neighborhood' expands access for millions of Americans to PBS educational materials, program information, and other enriching resources tied to PBS programming and services."



AMERICAN EXPERIENCE

ONE WOMAN, ONE VOTE A SHORT HISTORY & GUIDE

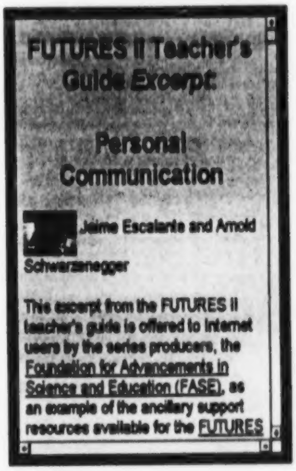
URL:http://www.pbs.org/learning/

Users who access PBS's neighborhood on the World Wide Web will find:

- The widely recognized PBS logo divided into several "clickable" puzzle pieces which represent the many services that make up PBS. Each puzzle piece leads to specific categories, such as:
- Searchable monthly program listings, including air dates, times and descriptions, as well as information on how to obtain products related to PBS programs;
- Educational program guides with activities for K-12 classrooms and a hyperlink directory of Internet sites with K-12 resources;
- Links to many public television stations and related organizations offering extensive information on the Web;
- A colorful "clickable" map providing information on individual public television stations;
- Information about college-credit telecourses available through the PBS Adult Learning Service; and
- Ordering information for videotapes such as the popular CIVIL WAR and BASEBALL series from PBS Home Video .

The PBS Web site will continue to grow and evolve over the coming months. Upcoming highlights include expanded program-related resources for K-12 educators; more extensive programming information; and an online store for ordering PBS videotapes and related products.

PBS is a private, nonprofit corporation serving 345 public television stations in all states, Puerto Rico, the Virgin Islands, Guam and American Samoa. An important community resource, PBS and its member stations use the power of noncommercial television to provide all Americans with quality programs and education services that inform, entertain and inspire.



FUTURES II Teacher's Guide Excerpt:

Personal Communication

Jaime Escalante and Arnold Schwarzenegger

This excerpt from the FUTURES II teacher's guide is offered to Internet users by the series producers, the Foundation for Advancements in Science and Education (FASE), as an example of the ancillary support resources available for the FUTURES

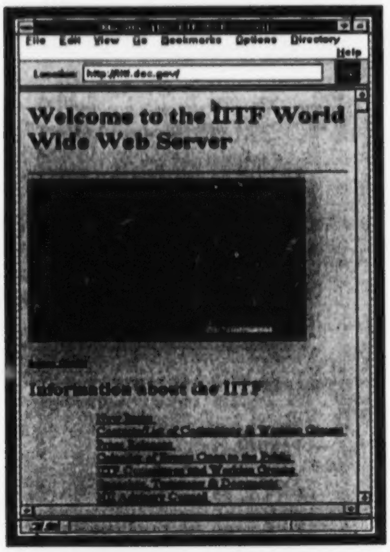
URL:http://www.pbs.org/learning/k12/resources/futures/futurestg.html

ROUND TWO OF THE [illegible]

The National Telecommunications and Information Administration of the Department of Commerce recently announced that funding is available for the 1995 round of information infrastructure assistance grants. The Telecommunications and Information Infrastructure Assistance Program (TIIAP), begun in 1994, awarded $24.4 million in matching grant funds to non-profit organizations and state and local governments in October, 1994 In 1995, the budget for the program is $64 million.

"This program exemplifies the Administration's commitment to innovative uses of technology to improve the quality of life for all Americans," said Assistant Secretary Larry Irving. "It puts resources directly into the hands of state and local leaders and targets communities that might otherwise be bypassed by the information superhighway."

Conceived as part of the President's National Information Infrastructure initiative, the TIIAP has already leveraged $1.75 in local matching funds for each federal grant dollar awarded. Projects underway as a result of the first round will improve the delivery of health care in rural areas, bring scientific and environmental information to classrooms electronically, and allow states to provide services and information to citizens using convenient, interactive kiosks.



http://iitf.doc.gov/

Welcome to the IITF World Wide Web Server

Information about the IITF

The IITF SERVER
URL: http://iitf.doc.gov/

Priorities in the 1995 round include funding demonstration projects that can be replicated in other communities, improving access to information and communication technologies for the disadvantaged, and supporting innovative planning efforts. Non-profit organizations and all non-federal governmental entities are eligible to apply. The closing date for applications is April 20, 1995.

For more information about TIIAP or the regional workshops, call + 1 (202) 482-2048, or send electronic mail to

tiiap@ntia.doc.gov.

or point your browser to the IITF server at URL:

http://iitf.doc.gov

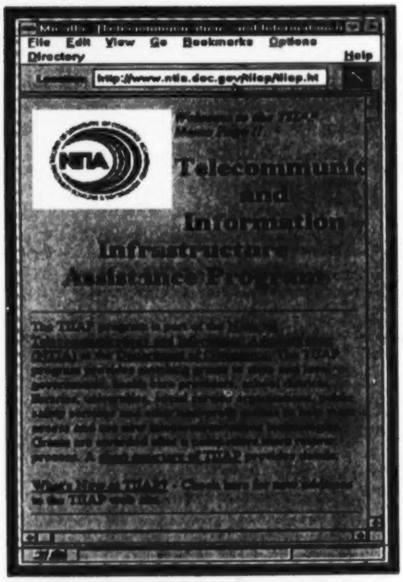
The IITF Web page contains a link to the home page concerning the Telecommunications and Information Infrastructure Assistance Program, and also provides links to other pages containing information regarding:

- press releases
- calendar of events open to the public
- IITF Committees and Working Groups
- Speeches, Testimony and Documents
- Frequently Asked Questions
- Selected Legislation

The TIIAP web page provides a link to contact information for Federal programs that support networking in K-12 education, or point directly to URL:

http://www.ntia.doc.gov/tiiap/contacts.html

For further information contact:
Ms. Laura Breeden, Director TIIAP
Tel: + 1 202-482-2048
Fax: +1 202-501-5136
E-Mail: tiiap@ntia.doc.gov



http://www.ntia.doc.gov/tiiap/tiiap.ht

Telecommunic and Information Infrastructure Assistance Program

THE TIIAP HOME PAGE
URL: http://www.ntia.doc.gov/tiiap/tiiap.html

KEY DATES

March 23 Letters of Intent
April 6 —Category 1 —Prelim (>1 m)
April 20—Category 1 (<1m), Category 2, Category 5
June 22—Category One Full Proposals

NETFUNDING PROGRAMS

The National Science Foundation sponsors a number of funding programs to help support the use of internetworking technologies in K-12 education, the development of new applications for the K-12 environment, and the development of new network-based curriculum in science and mathematics.

General information about NSF programs is found in the NSF *Guide to Programs.* This is located on the world wide web at URL: http://www.nsf.gov/nsf/nsfpubs/nsf9491/nsfgtp.htm More specific information about grants can be obtained in the *Grant Proposal Guide* . This brochure is found at URL: http://x.nsf.gov:80/nsf/ nsfpubs/gpg/start.html or can be obtained by calling: These publications and other reports can be purchased in print copy through the National Technical Information Service (NTIS) . For information call: +1 703-487-4650.

Key Programs

The Directorate for Education and Human Resources (EHR)

EHR is responsible for the health of the Nation's science, mathematics, engineering, and technology education and for providing leadership in the effort to improve education in these areas.

The divisions and offices under EHR key to K12 networking funding include:

Office of Systemic Reform
Division of Elementary, Secondary, and Informal Education
Human Resource Development

NATIONAL SCIENCE FOUNDATION

NSF in a Changing World: The National Science Foundation Strategic Plan

National Science Foundation Web Page
URL: http://http://www.nsf.gov/

Office of Systemic Reform (OSR)

Systemic Initiatives encourage and facilitate cooperation with states, cities, school systems, and other organizations in order to systemically impact science, mathematics, and technology education. Key systemic initiatives include: The *State Systemic Initiative* (SSI) which focuses on systemic changes in state education systems systems and the newly created *Urban Systemic Initiative* (USI) which seeks to support sustained school reform in the urban centers of the US.

Division of Elementary, Secondary, and Information Education (ESIE)

The programs in this division are designed to improve the educational experiences of all students in school settings—preK through the 12th grade—and to increase the opportunities for all individuals to explore science, mathematics, and technology beyond the school setting. Key programs and initiatives include: *Teacher Enhancement, Instructional Materials, Information Science Education Program, Presidential Awards for Excellence in Science and Mathematics Teaching, and the Young Scholars Program*

Human Resource Development (HRD)

HRD programs are primarily responsible for broadening participation of underrepresented groups in science, engineering, and mathematics. The programs focus on minorities, women and girls, and persons with disabilities.

Contact Information

The NSF address is :

National Science Foundation
4201 Wilson Blvd
Arlington, VA 22230

Main Tel: +1 703-306-1234
Main Fax: +1 703-306-0202
E-Mail: firstop@nsf.g
Pub. tel: +1 703-306-1130
Pub EMail: pubs@nsf.gov

DEADLINE DATES

April 1	[EHR] Teacher Enhancement
April 15	[EHR] [CISE] Networking Infrastructure for Education
April 22	[ENG] Combined Research Curriculum Development Proram
May 5	[EHR] Urban Systemic Initiatives in Science, Math and Technology Education
May 15	[EHR] Young scholars Program
May 15	[EHR] Instructional Materials Development
May 15	[EHR] Experimental Projects for Women and Girls (Preliminary Proposals)
May 15	[CISE] Institutional Infrastructure Program — Minority (II-MI)
June 5	[EHR] Course and Curriculum Development
June 12	[EHR] Combined Research-curriculum Development Program (Final Proposal)

TECHNOLOGY CHALLENGE GRANTS

THE CHALLENGE

The US Department of Education has recently unveiled a new an innovative Technology Challenge Grant Program. Unfortunately, this program that potentially could benefit learners from around the globe is now threatened by recent efforts by the House of Representative to balance the federal budget through deep cuts in social programs.

If the project is funded Challenge grants will be awarded to communities of educators, parents, industry partners, and others who are working to transform their factory era schools into information age learning centers and to support the development of new virtual communities of learners.

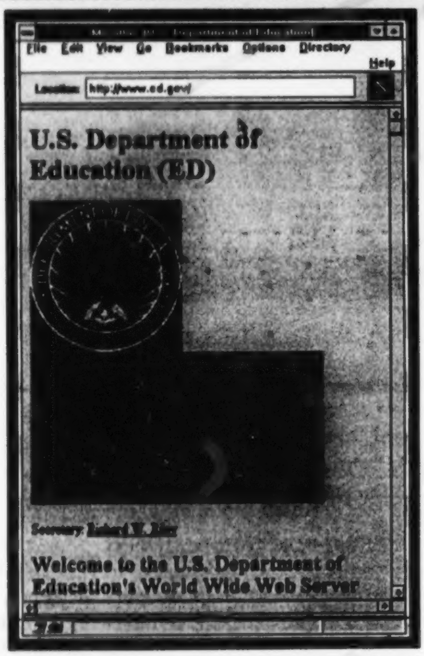
Priority will be given to applications from alliances of educators, industry partners, and community leaders who are working together to develop creative responses to the information age requirements of all learners, including those who have the greatest need for access to new technologies.

Who Can Apply ?

Each application must include a local education agency as a member of a strong consortium of partners with appropriate resources to address the needs identified in the community. State education agencies, colleges and universities, telecommunications firms and entertainment producers, software developers and hardware manufacturers, libraries and museums, community centers and local businesses, and others may all play a role in using information technologies to create new learning communities.

Uses of Challenge Grants

Challenge grants are intended to augment the efforts of communities working to meet the National Education Goals. Partners in the consortia are expected to make substantial commitments for the costs of equipment, software development, technical support, and any other costs that may be associated with acquiring connectivity linkages or services. Funds awarded through these grants will augment those investments by supporting the development of new curriculum, professional development, and the evaluation of educational effectiveness. The total value of commitments made by members of the consortium should significantly exceed the funds provided by the challenge grant.



U.S. Department of Education (ED)

Secretary: Richard W. Riley

Welcome to the U.S. Department of Education's World Wide Web Server

US Department of Education Page
URL: http://www.ed.gov/

Award Amounts

Approximately 16 challenge grants will be made in 1995. In some cases the grant may be as small as $500,000 per year. The typical grant will be larger, however. Approximately 12 grants will average $1 million a year, and four grants may range between $2 and $3 million a year. In each application the specific contributions of consortium members should be identified and documented.

The consortium also may draw on other appropriate sources of support at the national, state, or local level. These sources may include foundation grants, philanthropic contributions, and grants or contracts from other government programs such as the Department of Commerce's TIAAP Program and the NSF's NIE Program.

Challenge grants will be five-year awards. In year one, each consortium should be prepared to begin start-up activities, including initial trials of technologies and new applications during the 1995-1996 school year. Years two and three will be devoted to refinement and scale-up activities. Years four and five will support full-scale adoptions that can become self sustaining after the fifth year. Each consortium should be prepared to conduct careful evaluations of educational effectiveness at every stage of the effort.

Further Information

Information on the Grant Program is found in the Department of Education's On-Line Library, which is located on the Dept of Edu WWW Server at URLhttp://www.ed.gov/. and also available on the Dept of Edu Gopher Server at gopher.ed.gov (under Announcements, Bulletins, and Press Releases). To receive written instructions on accessing the On-Line Library, call 1-800-USA-LEARN. Or Contact Task Force directly to receive a hard copy at (202) 708-6001.

Critical Dates

APRIL 4 — Letter of Intent to Apply Due
JUNE 2 — Applications Due
JUNE-JULY — Panel Reviews
BY SEPTEMBER — Notification

EDULISTS

VIRTCOLL — For those Interested in Community Building

VIRTCOLL list (the Virtual College of Neighborhood Study) is meant for people who have an interest in improving their community. List participants can share knowledge and skills that they developed in trying to resolve a problem in their community, or can enlist the aid of dozens of people who have already faced similar problems. Participants will earn credits towards a: BS (Better Self-Government), MS (More Self-Government) or PHD (Proponent of Hands-on Democracy).

To subscribe, send the following command:

SUB VIRTCOLL your full name

in the body of mail to

LISTSERV@SJUVM.STJOHNS.EDU

il-eng listserv for the Snunit English Teachers Network.

Il-eng list, which is run by the Snunit Information System at the Hebrew University in Jerusalem Israel, is intended as a forum for discussion of issues related to the teaching of English as a Foreign Language in the Israeli school system.

Although the list is specifically directed towards teachers in the Israel school system, teachers of English from other parts of the world are welcome.

To Subscribe send a message to:

majordomo@snunit.huji.ac.il

In the main body of the message, write:

subscribe il-eng

Discussion Lists for Art Students and Teachers

ARTIST-L (Student Artist Discussions) listserv@uafsysb.bitnet

ARTCRIT (Art Criticism Discussion Forum) listserv@yorkvm1.bitnet

AARTED listserv@arizvm1.ccit.arizona.edu

SCNLRN-L — A Listserv for School Nurses

Scnlrn-l is a discussion group intended as a place for school nurses and others to share observations, knowledge and problems regarding health issues in the school setting.

To subscribe send an e-mail message to:

listserv@ubvm.cc.buffalo.edu

In the body of the message write,

Subscribe SCHLRN-L <yourfirstname yourlastname>

CA-PARENTS -New List for California Parents

Ca-Parents —is a listserv intended to provide a place for parents to discuss education-related matters. Because many educational policies are established by States, it was decided to create a state-focused discussion group. However, anyone is invited to participate.

To subscribe send an email message to:

listserv@netcom.com.

In the main body of the message, write:

subscribe ca-parents

The Magazine Rack

Leading Change: Why Transformation Efforts Fail. by John P. Kotter Harvard Business Review. March-April 1995, pp.59-67.

Kotter suggests eight essential steps to transforming an organization including:

1. Establishing a Sense of Urgency
2. Forming a Powerful Guiding Coaltion
3. Creating A Vision
4. Communication the Vision
5. Empowering Other to Act on the Vision
6. Planning for and creating Short-Term Wins
7. Consolidation Improvements and Producing Still More Change
8. Institutionalizing New Approaches

Control in the Age of Empowerment by Robert Simons. Harvard Business Review. March-April 1995; pp. 80-88.

"A fundamental problem facing managers in the 1990s is how to exercise adequate control in organizations that demand flexibility, innovation, and creativity." p. 80

Find It and Do It Online by Neil Randall; OC Computing, March 1995; pp. 112-141

Check out the latest PC Computing Road Map to the World Wide Web.

TechnoMania by Stephen Levy Newsweek, February 27, 1995, pp. 24-29.

"The computer age is already changing every aspect of our lives. But we still don't know where we want it to take us. "

In Business Knowledge Is Power by Walter A. Kleinschrod, Beyond Computing, March/April 1995, 34-40

"When people believe that what they are doing is worth doing...organizations get better ideas and better results." p.40

The Premier Issue of ON THE INTERNET — An International Publication of the Internet Society is now available. Volume 1/ No. 1 contains articles by Vint Cerf, Daniel Greer, Klaus Fueller, and A.M. Rutkowski.and will be distributed to all Internet Society Members, and available in select bookstores around the globe.

Webolution by Richard W. Wiggins. Internet World. April 1995; pp. 32-38

Captured By The Web—K-12 Schools and The WWW by Doug Johnson. MultiMedia Schools; March/April 1995; pp. 24-30.

Net Gains. Publishers Use the WWW to lure New readers. by Anita Dennis. Publish. March 1995, pp. 46-56.

"The true unsung heros here are the hundreds or even thousands of people all over the world who devoted large chunks of their time to put information content on the Web." Eric Bina quoted on p. 38

New Ways To Learn. by Andy Reinhardt. BYTE Magazine. March 1995; pp. 50-71

FIVE GOLDEN RULES:

1. Computers should be used to enhance, not replaxe, the teacher and supplement, not supplant, traditional teaching methods.

2. No more than 50 percent of the total information-technology budget should be spent on hardway: 30 percent should be spent on software, and at least 20 percent should be spent on support.

3. Find local partners to help with purchasing and support.

4. All computers should be networked with outside access.

5. The best pilot classes for any new technology are those that teach teachers to use the technology upon which a class is based. p. 70

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NetTeach News

THE VILLAGE GUIDE

APRIL 1995

1-4 April **Annual Conference and Exposition of the National School Boards Association** San Francisco, CA. Workshops, topic roundtables and lectures on the critical issues facing school managers today. For more information call 1-800-950-6722 or write NSBA, Marketing Dept., 1680 Duke Street, Alexandria, VA 22314.

7-8 April. **Annual Technology Conference of the Virginia Society for Technology in Education.** Wintergreen Convention Center. Wintergreen, Virginia. For more information contact: Daniel Arkin, Executive Director, VSTE, University of Virginia Curry School of Education, 405 Emmet Street, 287 Ruffner Hall, Charlottesville, VA 22903. +1 804-320-3424.

12 April **APPLICATIONS DUE FOR PIONEERING PARTNERS.** For more information send e-mail to mkinney@greatlinks.cic.net

10-13 April. **Internetworld 95** . Sponsored by Mecklermedia. For information call 1-800-632-5537 or +1 203-226-6967 or send e-mail to: iwconf@mecklermedia.com.

10-14 April **WWW'95, Third International World-Wide Web Conference, Technology, Tools, and Applications.** Darmstadt, Germany. For more information see URL: http://www.igd.fhg.de/www/ www95/www95.html or send an e-mail inquiry to: Roland Holzapfel at < holzapfel@igd.fhg.de>

18 April. **The Second John Henry Faulk Conference on the First Amendment,**. The University of Texas at Austin. The seminar will explore topics such as the legal definition of free speech on the information superhighway, universal access to the Internet, censorship online, and new directions for information technologies in the twenty-first century. The conference will be held in the Joe C. Thompson Conference Center on the UT campus from 1:00 to 5:00 p.m. and will be followed by a public reception at the Center for American History. For more information contact the Center for American History at (512) 495-4515.

20 April. **CLOSING DATE FOR TIAAP ROUND TWO APPLICATIONS.** For more information call + 1 call + 1 (202) 482-2048.

29 April to 2 May. **AusWeb95** - Ballina Beach Resort, Ballina, Far North Coast of New South Wales, Australia. The conference email address is AusWeb95@scu.edu.au The conference URL is http://www.scu.edu.au/ausweb95/ For further information on AusWeb95: Norsearch, the university conference organisers: Sheridan Daley, Email: mailto:sdaley@scu.edu.au ;+61 66 20 3922 Fax: +61 66 22 1954/ Stewart Hase, Email: mailto:shase@scu.edu.au +61 66 20 3922 Fax: +61 66 22 1954

MAY 1995

22-24 May. **THIRD ANNUAL CONFERENCE ON RURAL DATAFICATION: Routing the Information Highway Down Main Street** in Indianapolis, IN. Rhana Jacot / CICNet, Inc. / 2901 Hubbard Dr. / Ann Arbor, MI 48105 Tel: +1 (313) 998-6521 (voice); +1 (313) 998-6105 (fax) http://www.cic.net/~rjacot/rjacot.html

JUNE 1995

2 June ***APPLICATIONS DUE FOR US DEPT OF EDU CHALLENGE GRANTS***. For more information call +1 202-708-6001

17-19 June **Emerging Technologies— Lifelong Learning, NECC'95.** Baltimore, Maryland. For information contact: NECC'95 , ISTE, 1787 Agate Street, Eugene, OR 97403-1923. Tel: +1 503-346-3537, fax +1 503-346-3509e-mail : PDKATZ@ oregon.uoregon.edu.

27-29 June. **The first Women in Technology Conference,** sponsored by the International Network of Women in Technology, will be held at the Santa Clara Convention Center, Santa Clara, CA. The keynote speaker will be Gloria Steinem, the author, editor, lecturer, and feminist organizer. The conference aims to celebrate and acknowledge the accomplishments of women in technology, expand opportunities for women in technology,and identify successful strategies to career tracks, among other objectives. Further information on the conference is available by calling +1 (818) 990-1987, via e-mail from witi@crl.com, or by writing WIT Conference, 4641 Burnet Ave., Sherman Oaks, CA 91403.

28-30 June. **INET'95 - Internet Society's 1995 International Networking Conference** in Honolulu, Hawaii. INET'95, the 5th Annual Conference of the Internet Society will focus on The Internet: Towards Global Information Infrastructure. It will be held 27-30 June 1995 at the Sheraton Waikiki Hotel in Honolulu, Hawaii. This year there will be a whole track devoted to EDUCATION (K-12 developments). Kathy Rutkowski, the Editor of this newsletter, is a co-leader of the Education Track with Michelle Huston of Australia. This is an opportunity for educators to meet with the technologists, and share problems and seek solutions. For more information: URLs:
http://www.isoc.org/inet/inet95.html
Mail: inet95@isoc.org (information only)
Mail: inet-registration@isoc.org
Tel: +1-703-648-988, +1 800-468-9507 (in USA and Canada only), Fax: +1 703-648-9887; Post: Internet Society Secretariat, 12020 Sunrise Valley Drive, Suite 270, Reston, VA 22091 USA

JULY 1995

8 July. **Open Your Classroom to the World,** the Summer Telecomputing Conference of the Virginia Society for Technology in Education-SIG_TEL group.in Charlottesville, VA. For more information contact: Daniel Arkin, Attn.SIG/TEL, Virginia Society for Technology in Education7337 Longview Dr. Richmond, VA 23225

YOUTH MAKING A DIFFERNECE

YouthCaN 95 — An International Conference [illegible]

On April 28th, the American Museum of Natural History will host the third annual YouthCaN telecommunications Conference. YouthCaN 95 will provide young people from around the world with the opportunity to use telecommunications and global networking for environmental projects within their local communities.

This year's conference draws upon the major success of YouthCaN 94 at which over 750 young people attended a day of twenty-two workshops organized and presented by youth groups. These workshops covered environmental networking, telecommunications training, and interactive video-telephone links with young people from nine countries, enabling students, living oceans apart, to interact with one another as if they were in the same room. This year, over 1000 students are expected to attend.

The goals of YouthCaN 95 are to:

- bring together youth-oriented environmental groups and organizations who use computer communications in their work
- provide opportunities for young people from these groups to display their projects through presentations, demonstrations, hands-on workshops and discussion groups
- demonstrate, through interactive links with youth groups around the world the power of computing networking and other telecommunications media as tools for environmental action, research and cross-cultural communication with educators, US officials, youth groups and Non-governmental organizations (NGOs)
- foster sustained networking among youth participants fir future events and projects

The theme of. this year's conference is H.E.L.P. — Help Earth Live and Prosper — by restoring and protecting the earth. Students from around the world will share their projects that focus on restoring damaged ecosystems, creating natural habits, or protecting existing wildlife.

For further information contact:

By Mail:
Jay Holmes
Education Department
American Museum of Natural History
Central Park West at 79th Street
New York, N.Y. 10025-5192 USA

By E-Mail:
youthcan-info@igc.apc.org (general information)

NetTeach News is the chosen newsletter for pioneer networking educators worldwide. It provides a forum for the exchange of information about how advanced networking technologies are changing society, and in particular the way we teach,learn, and deal with one another. It is intended as a platform for many varied personal and collective travels to new "networlds" for educators around the globe and a pathway to emerging global living learning villages.

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